ENGINEERING NEWS-RECORD

MARCH 18, 1948

Thomas A. Scott—salvage operations and waterfront construction are his forte

A McGRAW-HILL PUBLICATION

100,000 Hours

FROM ONE SET OF "SUPER-7" V-BELTS!

OVER 14 YEARS AGO, 66 complete *Texrope* drives were installed in New York's famous RCA building . . . on air-conditioning equipment for the NBC radio studios. Today, some of these *original* V-belts are still running, 20 hours a day, week in, week out!

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Texrope drives offer you the widest selection of V-belt products in industry . . . V-belts, standard, adjustable and variable-speed sheaves, and speed changers.

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Texrope Super-7 V-belts result from the cooperative research of Allis-Chalmers and B. F. Goodrich; and are sold only by A-C dealers and offices. *Texrope* and *Vari-Pitch* are Allis-Chalmers trademarks. A 2614

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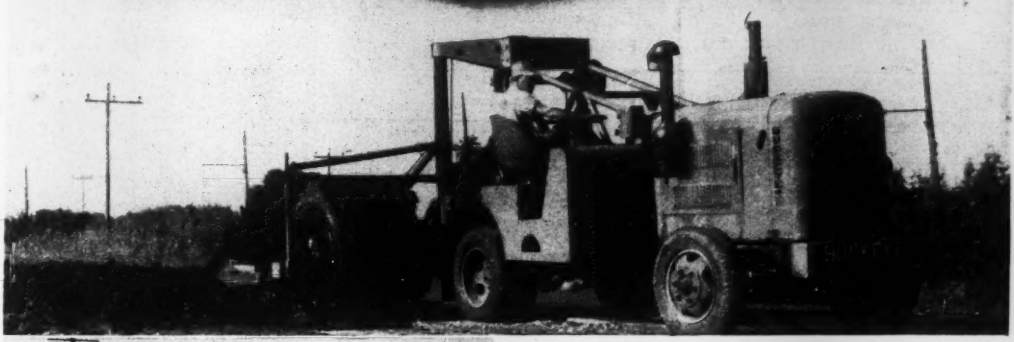

Construction company working near Ames, Iowa, states:

Buckeye Hi-Way Wideners cut up to a mile a day of good side ditch line with an accurate bottom grade line.

(Name on request)

SUBGRADING and excavating along the shoulder for highway widening no longer needs to be the biggest cost on such jobs. Buckeye Model 616 Hi-Way Widener digs up to A MILE A DAY of clean, flat bottom ditch, to exact grade.

The Buckeye Hi-Way Widener is a complete, compact, self-powered unit. Travels from job to job at 20 m.p.h. (16 m.p.h. in reverse). Digging wheel swings back out of way for travel. Digs to 18″ deep. Two standard wheel sizes: 24″ to 30″ and 42″ to 48″ wide. Digging speeds range from 2.7 to 29.1 f.p.m.; rooter point or scarifier teeth speeds from 159 to 435 f.p.m. All controls within easy reach of operator's swivel seat. Overall weight meets all highway load requirements. Get the complete facts and you will save money on present and future highway widening jobs.

Other Products: Dozers, Scrapers, Hoists, Bodies, Load-Packers and Winches.

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Please send me new Bulletin No. 616 on the Buckeye 616 Hi-Way Widener.

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Company or Highway Dept._____

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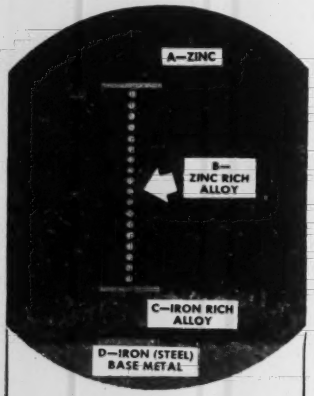
ONLY HOT-DIP GALVANIZING alloys molten zinc to base metal



The infallible testimony of the microscope reveals *why* the application of molten zinc through the *Hot-Dip Galvanizing process* provides the utmost in rust prevention. Protective zinc (A) is first *bonded* to the base metal (D) by an iron rich alloy (C) then a layer of rich zinc alloy (B) obtainable only through the Hot-Dip process—*seals out* destructive elements that cause rust and corrosion.

Proved Time After Time

Time has convincingly proved, by thousands of case histories, that the Hot-Dip Galvanizing method, as employed by members of this Association, *does* provide longer life, greater uninterrupted service and effects tremendous savings in expensive maintenance and replacement costs.

Write for Membership Roster

For membership roster or any information in regard to *your* particular corrosion problems, address The Secretary, American Hot Dip Galvanizers Association, Inc., First National Bank Bldg., Pittsburgh, Pa.

hot-dip GALVANIZING

ENGINEERING NEWS-RECORD

VOLUME 142 MARCH 10, 1949 NO. 10

WALDO G. BOWMAN
Editor

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Construction Business 80

THE COVER PICTURE

Captain Tom Scott, as he has been known since his seafaring days, is heavy construction personified. In 47 years as a contractor he has perpetuated a name made famous in salvage operations and waterfront engineering by his father before him.

Now, as chairman of the board of Merritt-Chapman & Scott Corp., his fame still rests on waterfront construction exploits and marine salvage—he received the highest civilian award, the Medal of Merit, for his direction of salvage operations during World War II—but his field of construction activity has no such limited boundaries. Industrial buildings, bridges, hospitals and an air base on its list of contracts proves the company's ability to extend far back from the waterfront.

Both for his exploits and his business leadership, Tom Scott was recently singled out by The Moles to receive their 1949 award. He has said that this was the culmination of his career, but no one marking the vigor with which he still bids and works his jobs see any intimation of his retirement. At 72, Tom Scott is still one of the nation's top construction contractors.

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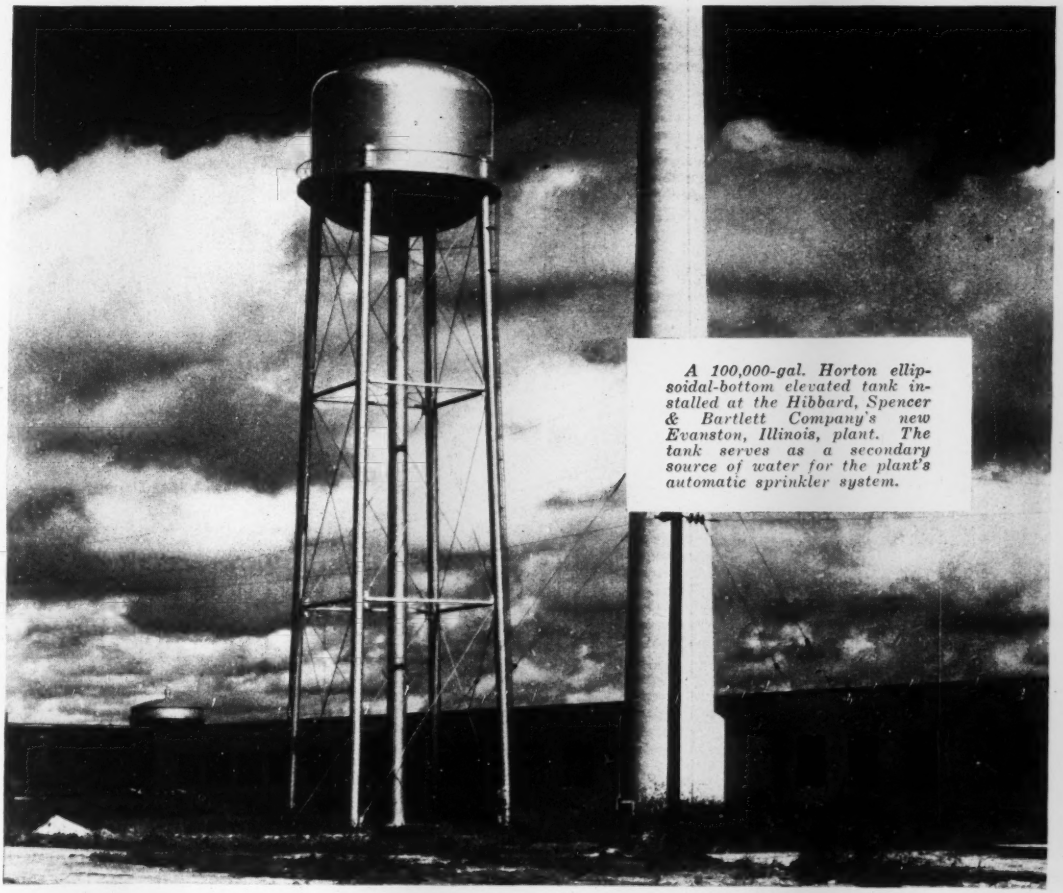

A 100,000-gal. Horton ellipsoidal-bottom elevated tank installed at the Hibbard, Spencer & Bartlett Company's new Evanston, Illinois, plant. The tank serves as a secondary source of water for the plant's automatic sprinkler system.

The last word in fire protection

This Horton elevated storage tank not only *is*, but *has* the last word in fire production. It serves as a secondary source of water for an automatic sprinkler system, and in case the pressure of the primary water supply is not adequate, the tank can be relied on to provide immediate gravity water pressure to quench the flames before they have a chance to gain headway.

Horton elevated tanks are dependable in construction, too, as well as in operation. Some of the advantages of their butt-welded joints are (a) watertight seams, (b) no sharp edges or corners to invite corrosion and collect dirt, (c) all surfaces accessible for painting, (d) simple maintenance requirements—usually just regular painting, and (e) graceful appearance, pleasing proportions and modern design.

Standard sizes of ellipsoidal-bottom units range from 40,000 to 500,000-gals. for industrial fire protection installations. Ask our nearest office to give you a quotation on the capacity you need.

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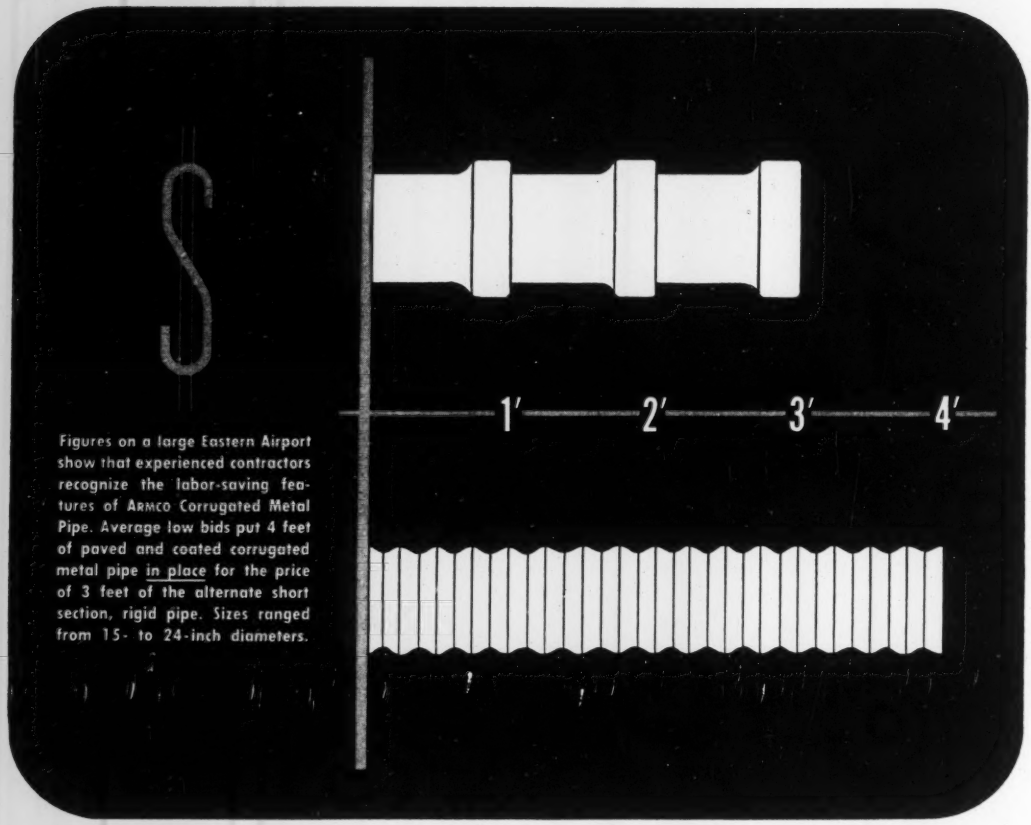

Figures on a large Eastern Airport show that experienced contractors recognize the labor-saving features of ARMCO Corrugated Metal Pipe. Average low bids put 4 feet of paved and coated corrugated metal pipe in place for the price of 3 feet of the alternate short section, rigid pipe. Sizes ranged from 15- to 24-inch diameters.

Make your bid dollar go 33⅓% farther

Contractors have found that a dollar goes farther when they figure bids with ARMCO Corrugated Metal Pipe. It means lower bids with adequate profits and puts you in a sound competitive position.

Experience shows that ARMCO Pipe saves money in many ways. Although amply strong it often weighs only one-tenth as much as more massive types. This means low handling and hauling costs. Job costs are low because unskilled labor quickly makes the installation. There is no breakage, no curing, no waste, no delay.

Individual sections of ARMCO Pipe or PIPE-ARCH are supplied in any length that can be hauled or handled. No large and expensive equipment is required for installation. A few men with a rope sling or a small A-frame can handle the largest structure. Trenches need only be wide enough for men to work since there are no bells or massive joints that require extra digging. Connections are made with simple band couplers. End finishing is easy and inexpensive with prefabricated ARMCO End Sections.

Bid low on that next contract with ARMCO Corrugated Metal Pipe. You will find it ideal for highway, railway, airport or municipal installations. Write for complete information. Armco Drainage & Metal Products, Inc., 1465 Curtis Street, Middletown, Ohio.

Export, The Armco International Corporation

ARMCO DRAINAGE STRUCTURES

THE CONSTRUCTION WEEK

WEATHER LAW?—The last word hasn't yet been heard on the legal side of artificial rainmaking. Some weeks ago (ENR Jan. 20, p. 57) the Stanford University LAW REVIEW issued a scholarly study of the problem, concluding that no one can lay claim to a cloud because of its "vague and fugitive" nature. But last week the Yale LAW JOURNAL proposed a law to prevent "irresponsible rainmaking" by limiting such activity—and all other weather-control experimentation—to the federal government and its contractors.

HOOVER COMMISSION SCHEDULE—Trying to meet its March 13 deadline, the Hoover Commission cleared its docket first of the less controversial reports in its list of 15. Tough cases like the Interior Department and the Army Engineers took more time. The interior report is now due to reach Congress on St. Patrick's day, appropriately accompanied by a potent dissent offering an alternate plan.

TRANS-CANADA HIGHWAY—Construction of a paved highway across Canada is expected to start this year. The $260 million project awaits only the introduction of enabling legislation (the Canadian government will pay 50 percent of the cost). Routes of the highway, and "certain other characteristics" of the road, will be left to the provinces—a move to mollify several provincial governments that are not happy at the thought of federal planning interference.

NO BASING POINT ACTION—Don't expect Congress to do anything about basing point pricing this year. Bills that would redefine legal delivered pricing have been introduced—but Congressional sentiment favors going slow until the dust raised by the cement decision has settled. For instance, Congress wants to see what the Supreme Court will say in the Rigid Steel Conduit case, where the key issue is whether the Federal Trade Commission has the right to ban a basing-point system without first proving existence of a conspiracy. Congress will wait on the Court—and the Court hasn't even started oral hearings.

RIVER REVETMENT—Some big contractors are showing increased interest in placing articulated concrete mattress in the Corps of Engineers' ten-year, $360 million river revetment program in the Memphis and Vicksburg Districts. The government is building its third million-dollar sinking plant for this work. Plant investment seems to be the chief obstacle in contracting the work. But by next year the Corps of Engineers hopes to interest some large contractors or combinations of contractors in placing concrete mattress, using a leased government sinking plant and furnishing all other floating equipment.

CEMENT FROM MEXICO—Speaking of cement, the Mexican government is preparing to ship a million tons of the material to the United States shortly. The shipment—all contracted for and the largest of its kind ever made—results from lifting of a government ban imposed to keep Mexican cement within the country.

PULP LIQUOR OUT?—Hope for the sulphite pulp industry in its battle to end pollution of streams resulting from waste liquor is contained in a new development in Wisconsin. Twelve manufacturers, joined as the Sulphite Pulp Manufacturers' Research League, last week placed in operation a $500,000 experimental plant to convert spent sulphite liquor into dried yeast. Researchers observed that offending factors in the liquor are not the chemicals used in the process, but wood sugars. The Lake States Yeast Corp.—which will operate the new plant—thought it could convert these sugars into yeast. It could, and did.

NEW LAKE FOR INDIANA—The Indiana State Flood Control and Water Resources Board is considering creation of a $12,000,000, 105-mi. shoreline lake in a natural basin between Bloomington and Nashville, despite violent opposition by residents of the area, who would be forced to leave their farms. The proposed lake would supply water for the cities of Bedford, Bloomington and Nashville; it would also prove a lucrative recreational area, backers believe.

LABOR AGREEMENT WORKS—New York area builders expect no work stoppages due to jurisdictional fights, whether or not any new federal labor legislation is forthcoming. A formula for mediation of trades disputes without work stoppages, adopted some years ago by the Building Trades Employers Assn. and the Building and Construction Trades Council, has been responsible for settlement of an average of 20 disputes a week without trouble, BTEA figures show. Under the formula, disputes between unions go through on-site conferences, then mediation, then arbitration by the executive committee of BTEA. Decision in this last case is final and binding. In 1948, of hundreds of cases, only five went as far as arbitration, BTEA said.

You Don't Need to Keep your Fingers Crossed with Chlorination by W & T

The W&T Residual Chlorine Recorder gives better chlorination control in old plants as well as new.

Keeping fingers crossed over the dependability of chlorinating equipment is something that engineers who demand W&T Chlorinators can forget. They know they can forego the time honored symbol of hope-with-uncertainty and go on to other problems without worry or risk. Here's how they figure it.

W&T has a complete line of chlorinators and accessories for handling from ounces to tons of chlorine per day.

W&T has over 35 years' experience in solving all types of chlorination problems.

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W&T has a large, precision machine shop which understands, from long experience, the exacting nature of chlorinator manufacturing.

W&T has a nationwide field staff to render service and technical assistance promptly and effectively.

Thus, the engineers who say "W&T Chlorinators" know they have experience, dependability and sound theory behind their decision.

You'll find your W&T Representative willing and helpful on *your* chlorination problems, too. Why not call on him for your next job—instead of crossing your fingers?

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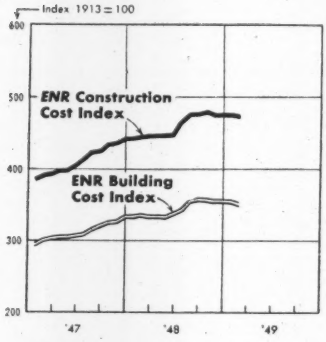
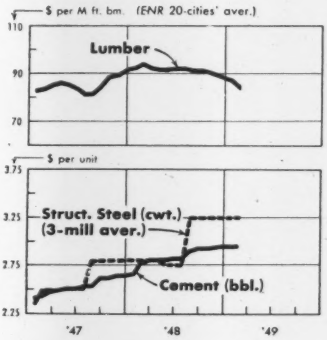
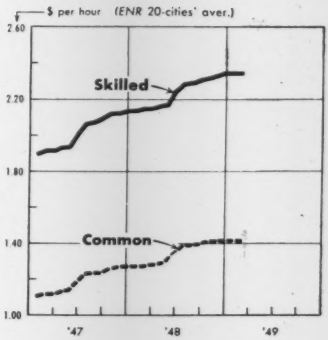
S-45

MARCH CONSTRUCTION BUSINESS REPORT







ENR INDEXES (1913 = 100)	Mar. '49	Feb. '49	% Change	Mar. '48	% Change
Construction Cost	474.80	475.37	−0.1	443.60	+ 7.0
Building Cost	352.47	352.87	−0.1	334.22	+ 5.5
MATERIALS PRICES (20-cities' average)					
Cement, bulk, per bbl	$2.980	$2.970	+0.3	$2.810	+ 6.0
Structural Steel, (3-mill aver.), per cwt	3.250	3.250	0.0	2.800	+16.1
Sand, per ton	2.010	2.010	0.0	1.874	+ 7.3
Lumber, 2x4 Fir, per M ft. bm	90.870	92.160	−1.4	97.520	− 6.8
Lumber 2x4 Pine, per M ft. bm	78.950	80.930	−2.4	89.210	−17.3
Common brick, per M	27.438	27.438	0.0	25.325	+ 8.3
Ready-mixed concrete, per c. y	10.257	10.177	+0.8	9.956	+ 3.0
Structural Clay Tile, 3x12x12 per M	130.708	130.658	0.0	122.210	+ 7.0
WAGE RATES (20-cities' average)					
Common	1.424	1.417	+0.5	1.283	+10.9
Skilled (aver. 3 trades)	2.376	2.353	+0.9	2.153	+10.4
Bricklayers	2.595	2.560	+0.1	2.303	+12.7
Structural Ironworkers	2.351	2.339	+0.5	2.172	+ 8.2
Carpenters	2.183	2.183	0.0	1.986	+10.0

CONTRACTS AWARDED (thous.)	February 1949	February 1948	% Change†	Two Months 1949	Two Months 1948	% Change†
Total U. S. (ENR reported)	$563,084	$474,643	+18.6	$1,128,910	$916,598	+39
Private	373,904	227,010	+64.7	603,718	434,539	+56
Public	189,180	247,633	−23.6	525,192	482,059	+23
Federal	19,775	134,298	−85.2	149,672	190,415	−12
ENR Const. Volume Index, '13 = 100	.....	.....	.....	.....	.....	.....
NEW CONSTRUCTION CAPITAL						
Total	764,419	496,862	+53.8	1,241,680	722,712	+93
State & Mun. Bond Sales	365,938	223,870	+63.5	565,843	333,910	+91
Corporate Security Sales	398,481	272,992	+46.0	675,837	388,802	+96
Federal (non-federal work)	.....	.....	.....	.....	.....	.....
Federal (federal work)	.....	.....	.....	.....	.....	.....

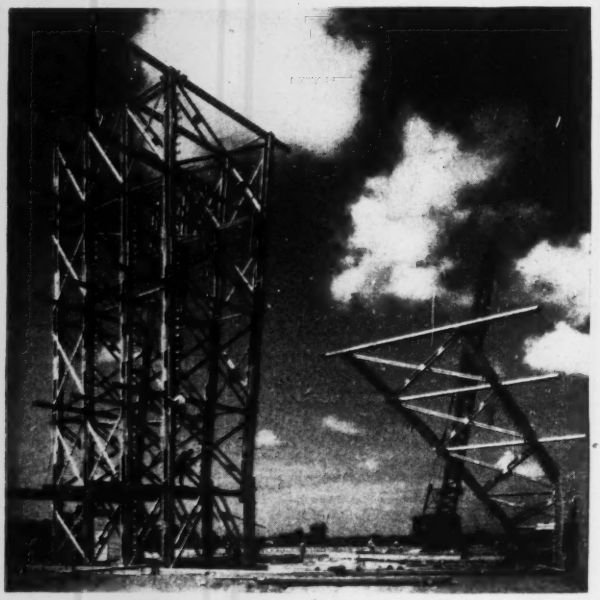
MATERIAL SHIPMENTS & LABOR SUPPLY	January(J) December(D) 1949	January(J) December(D) 1948	% Change	Twelve Months 1948	Twelve Months 1947	% Change
Cement, thous. bbls., Bu. of Mines	12,741(D'48)	12,379(D'47)	+ 3.0	204,329	187,395	+9.0
Fabr. Struct. Steel, thous. tons, AISC	148(J)	131(J)	+42.0	1,994	1,915	+4.1
Lumber, mil. ft. bm., NLMA	2,195(J)	2,788(J)	− 1.6	35,334	36,016	−1.9
Lumber Prod., mil. ft. bm., NLMA	2,232(J)	2,719(J)	+ 3	36,916	36,635	+0.8
Contract Const. Employ., thous., BLS	1,881(J)	1,645(J)	+42.0	2,032	1,921	+5.8

† Computed on weekly average basis.

SPEED CONSTRUCTION

LOWER COSTS with....

HINES TIMBER FABRICATION SERVICE



Hines engineers, distribution and manufacturing facilities, which go all the way back to harvesting trees in the forest, provide a timber fabrication service that's second to none. Our engineering staff is capable of initiating original designs and when Hines handles the job, timbers arrive at the construction site—sized, shaped, bored, marked and blueprinted so that erection crews can proceed with maximum speed and efficiency.

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Broader Interests

CONTRACTORS may never become economists, but they have definitely taken on a new appreciation of the economic factors that mold the construction business. At the meeting last week of the Associated General Contractors in New York, it did not require a long memory to note this change. With rapt attention, some 500 of the nation's top contractors listened to two hours of economic dissertation and liked it. If this is surprising, it is also significant because the subject was capital expenditures by industry and their chances of continuance. No single factor is more important to construction prospects than a high level of new investment in plant expansion and modernization. It was in recognition of this, and of the even broader effect on business as a whole, that the McGraw-Hill survey of industry's plans for industrial expenditures (ENR Jan. 20, 1949 p. 62) was carried out. The results were reassuring, some $10 to $14 billions per year for the next five years being ticketed for such investment. But the impotrant thing that the AGC meeting emphasized was that the contractors are interested in the factors that can make such investments either attractive or impossible. Carrol M. Shanks, president, The Prudential Insurance Co. of America and Sumner H. Slichter, Harvard economist, detailed them in big doses. Difficulty in selling common stock, poor balance between borrowing and equity financing, effect of taxes on ability of corporations to use earnings for capital expenditures were some of the factors discussed. It is a promising sign for the construction industry when its contractors begin to look beyond the immediate job and try to see and understand what makes the economy, which construction serves, tick.

Too Many Student Chapters

THE ENGINEERING PROFESSION, already cursed with too many organizations that overlap one another's fields, is now in the process of compounding this error on the college campus.

To the long-established student chapters of the American Society of Civil Engineers are being added others by the American Road Builders Association and the National Society of Professional Engineers. The fact that some of these new chapters are at schools that do not now have ASCE chapters may seem to justify them, but it does not alter the more important consideration that duplication of student chapters under varied sponsorship can only weaken the whole movement to provide useful aid to the young men about to enter the civil engineering field. This aid may be partly professional, which the NSPE may claim it is prepared to supply, but it is mostly technical and inspirational, and is thus more logically an ASCE function.

It will be much better if organizations that feel an obligation to aid engineering students will cooperate with existing ASCE student chapters, which are willing and anxious to expand and improve their activities. The engineering student of today has a full schedule as it is. To importune or require him to belong to chapters of all the duplicating organizations that his elders have set up for themselves can only complicate his life and detract from his studies.

Dispersion of Road Funds

THE THREAT of further dispersion of available highway funds to little-used roads is very real, and its implications are far-reaching. This is said in full recognition of the fact that, superficially, the farmers appear to have reason for holding that they have waited too long for all-weather roads.

The dispersion movement began to show strength when federal post-war highway work was being planned. It resulted in federal aid for secondary roads being included in the Postwar Highway Act of 1944. At that time no one foresaw the slowness with which highway construction could be resumed after the war, nor did anyone realize how fast the primary road system was going to deteriorate physically and in traffic capacity during the five years just passed. And few people foresaw the sharp decline in the amount of new highways that could be built with the funds at the disposal of state highway departments. Consequently, little objection was raised in 1944 to spreading federal aid to cover some secondary road work.

But that relatively small spread set a precedent and opened the way for demands for more money. Representative J. H. McGregor, speaking at the recent ARBA meeting in Washington, emphasized the need for all-weather roads to serve the farm population. The same plea is heard in state legislatures. And it may well be that more money should be spent on those roads, but not at the expense of the primary system.

Today we can see the deficiencies of the primary system all too clearly. Our present rate of reconstruction is hardly offsetting normal obsolescence, and is making little or no progress toward relieving the congestion resulting from the continuing increase in motor vehicle use, especially in and around cities. Under such circumstances, any further diversion of money from the primary system can only injure the farmer by weakening the whole economic balance of the nation.

The Sidewalks of New York COVER HUNDREDS OF MILES OF CLAY PIPE

One of New York's latest projects is the enlargement of subway stations on the 4th Avenue line. City Engineers helped relocate city sewer lines to make room for bigger stations, specifying larger Clay Pipe lines where they were needed. Where the lines were to remain the same size in their new locations, the *original Clay Pipe* was used again.

CLAY PIPE NEVER WEARS OUT!

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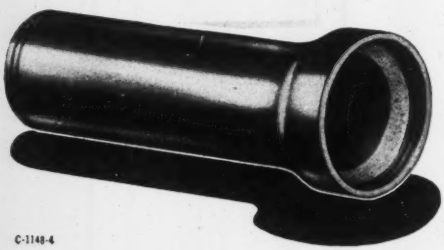

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Vitrified CLAY PIPE

ENGINEERING NEWS-RECORD

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Lower prices, higher profits cited as contractor problems

Largest AGC convention hears outside experts appraise effect of the general economy on construction industry—Group elects Adolph Teichert, Jr., as president for 1949

By Robert H. Dodds

Giants in finance and economics who spoke last week at the convention of the Associated General Contractors of America in New York told 1,200 construction men to cut costs in order to avoid pricing themselves out of a substantial portion of the market; then one of the financiers told them that profits were modest, if not too low.

Translated into practical language, this meant that greater efficiency at the place where contracting pays off—the jobsite—was the way to prevent a falling-off in business.

General sessions of this convention, the largest yet held by AGC, were conducted by president Dwight Winkleman of Syracuse, N. Y., and his successor, Adolph Teichert Jr., Sacramento, Calif., who was elected president for 1949-50. Talks by experts outside the construction industry were augmented by those within, on both the owner and contractor sides of the fence; and many front-office problems were examined at division meetings.

Outsiders speak

Nevertheless, it was the information from outside to which the contractors listened most attentively. For instance, mimeographed copies of a talk by banker Guy C. Kiddoo had to be reprinted three times to satisfy the demand by conventioners who would not wait for official publication. Mr. Kiddoo's greatest appeal perhaps lay in the facility with which he handled the language of the construction man—a facility born out of necessity, for as vice-president of the First National Bank of Chicago he has had to know construction in order to lend wisely to contractors. However, he gave an extensive account on how to remain a good credit risk, and he cited a few facts of compelling usefulness.

"The contracting industry receives very modest compensation for its work when you take into account the capital and experience required and the risks incident to the business." Taking a sampling of contractors' statements he told some percentages of profit, after taxes. They were from 1.8 to 6.2 percent for road contractors, from 1.2 to 12.9 percent for mechanical trades and 0.2 to 16.66 percent for general contractors.

In pointing up a danger that costs are restricting the construction market, Mr. Kiddoo warned, "You should not simply accept high costs as inevitable and pass them on to owners and public authorities."

Sumner H. Slichter, Harvard University economist said that the industry must give customers more for their money this year if it expects to maintain the high building volume of 1948. The price factor was given greater weight by his assertion that lowered commodity prices were the safest means of combatting current tendencies to curtailment in the general business picture. Further anti-inflation tactics on the part of the government would be a major blunder at this time, he said, and increased taxes would be the greatest mistake of all.

The higher-tax danger was elaborated by Carrol M. Shanks, president of the Prudential Insurance Co. of America, who asserted that more taxes would further jeopardize the ratio of capital expenditures to capital investment. According to a McGraw-Hill survey this ratio already is down to a point where it endangers our industrial security, by slowly robbing us of the tools of production.

Construction labor

Coming a little closer to field construction matters, Richard J. Gray, president of the AFL Building and Construction Trades Dept., lauded the contractors for their cooperation in the joint plan for settlement of jurisdictional disputes. He then asked further cooperation in any procedural change that might be necessary when the Taft-Hartley act is changed. In reference to that law he suggested that the contractors cooperate with labor in

(*Continued on p. 16*)

ICE DEMOLISHES BRIDGE—A huge ice jam (the likes of which will move down many rivers this spring) on the Des Moines River recently knocked out a three-span steel truss crossing at Chillicothe, Ia. The center span was completely washed away; the south span was pushed from its piers while the north span buckled but remained in place. (Wide World Photo)

NEWS BRIEFS

Dams—Amis Const. Co., Oklahoma City, and San-Ore. Const. Co., McPherson, Kan., jointly submitted the apparent low bid of $11,350,647.59 for the Bureau of Reclamation Cedar Bluff Dam project south of ELLIS, KAN. . . . The 1948 water and power revenues of CALIFORNIA's Central Valley project totaled $5,749,262, an increase of $2,126,564 over 1947 . . . Bids on the first major portion of railroad relocation for MCNARY DAM will be opened March 15, for a 17.8-mile section of the Spokane, Portland and Seattle Ry. on the Washington shore of the Columbia River. It includes about 5,500,000 cu.yd. of excavation. A fire in the concrete mixing plant at Bull Shoals Dam recently shut down all concrete placement for nearly three weeks. Fire fighting limited the damage to the upper part of the plant, and saved the expensive electric equipment, which controls the weighing, batching and mixing equipment. About 164,000 cu.yd. of concrete has been placed. Construction schedules call for placing 75,000 cu.yd. in March and 100,000 cu.yd. in April. Peak pours will begin in April or May, 1950, when 160,000 cu.yd. are scheduled to be placed each month.

Transport—Greyhound Corp. will erect a $7,000,000 bus terminal at Clark and Randolph Sts., CHICAGO . . . Pennsylvania Railroad has approved a $6,000,000 program of improvement for its passenger terminal at PITTSBURGH. Also, contracts have been let for additional platforms and ramps in WEST PHILADELPHIA at the 30th St. station . . . The Seaboard Air Line R. R. plans to build a $1,000,000 freight yard at the eastern edge of TAMPA, FLA.

Highways—Wm. F. Freeman, Inc., High Point, N. C., has been awarded the engineering contract for a proposed coastal toll road from VIRGINIA BEACH, VA., to NAGS HEAD, N. C. . . . VIRGINIA and TEXAS are to try out rubberized highways, making test stretches to compare it with asphalt . . . Executive committee of the Greater Boston Development Committee has endorsed the Staves bill for a $100 million MASSACHUSETTS highway bond issue . . . The NUECES COUNTY, TEX., commissioners are taking steps to build a $1,700,000 causeway from the mainland south of the Naval Air Station to PADRE ISLAND . . . In CALIFORNIA, as of Feb. 1, 209 highway contracts were under way for a total of $81,886,892 . . . PRA has approved OKLAHOMA's $9,560,000 federal-aid road program for 1949 . . . VIRGINIA highway department has preliminary plans for a mountain-top radio station in the CULPEPPER district to direct northern Virginia road forces during snowstorms and other highway emergencies . . . Ground was broken Jan. 31 for the $9,500,000 Battery Park underpass to link the East and West side highways in lower MANHATTAN, N. Y. CITY . . . PHILADELPHIA, PA., has appropriated $180,000 for plans for the proposed Schuylkill expressway . . . B. D. Tallamy, NEW YORK state public works superintendent, says that the state Thruway which was originally estimated to cost $69,000,000 may cost upwards of $100 million.

Bridges—Work has started on a $7,000,000 steel and concrete bridge to connect SEASIDE HEIGHTS, N. J., with the Toms River Bay shore . . . Work will start this year on a $1,200,000 bridge across the Ashley River near CHARLESTON, S. C. . . . State appropriations are being asked for a $4,500,000 bridge over the Allegheny River at TARENTUM, PA. . . . KING COUNTY, WASH., has sold a $3,000,000 bond issue to finance bridge construction . . . The Delaware River Joint Commission has recommended the construction of a new approach to the CAMDEN, N. J. end of the Delaware River Bridge.

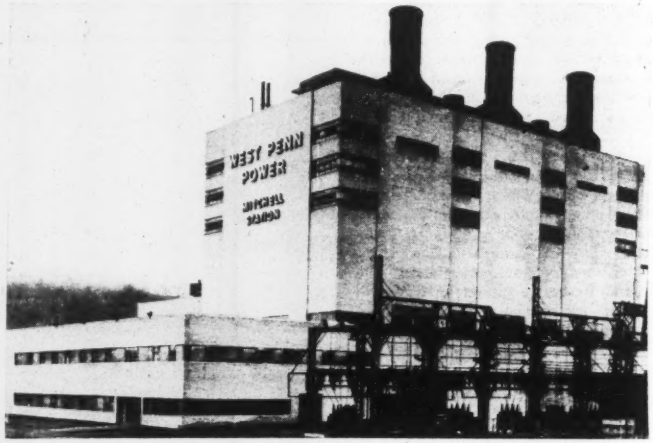
Group Bids $28 million on Detroit Dam in Oregon

Consolidated Builders, Inc., a Nevada corporation with offices in Portland, Ore., was low with $28,230,509 for construction of the main structure of Detroit Dam, a unit of the Willamette Basin flood control, navigation and power project.

Consolidated Builders, managed by Al Bauer, president of the Portland chamber of commerce, was incorporated by General Construction Co., Walsh Construction Co., Kaiser Engineers, Pacific Bridge Co., Utah Construction Co. and the Shea Co. Its bid was $3,311,348 under the government's estimate of $31,541,856, and more than $4,000,000 under the next lowest bid. Bauer worked on the construction of Bonneville Dam and during the war he headed up the Kaiser shipbuilding program in Portland.

The dam, located on the North Santiam River, will be an all-concrete straight-gravity structure, 448 ft. high and 1,580 ft. long, topped by a roadway 20 ft. wide. Water storage in the 340,000 acre ft. reservoir will be used hydroelectric production at a 100,000-kw power plant.

Other bidders were: Guy F. Atkinson Co., San Francisco, lead contractor on a joint bid with five other contractors, $32,722,282; Santiam Constructors, a joint venture headed by J. C. McGuire, Los Angeles, $34,798,775,, and Morrison-Knudsen, $32-889,995.



MITCHELL POWER STATION has been put in service by the West Penn Power Co. on the Monongahela River 20 miles south of Pittsburgh. This $28,000,000 installation will supply 160,000 kw. of power when its second unit—upon which construction nears completion—is installed. Sanderson and Porter, engineers and constructors of New York, designed and built the plant.

Senate bill would authorize beginning of 810,000 low-rent housing units

Bipartisan measure offers six-year public housing construction plan which would be paid off over 40 years at $308 million per annum

Construction of low-rent public housing by local authorities on an unprecedented national scale may be predicted from the compromise bill recently introduced in the Senate. The measure (S. 1070) would authorize starting a total of 810,000 low-rent units in six years to be subsidized by federal contributions up to a limit of $308 million a year for 40 years.

Other provisions would set up authority to aid urban slum clearance, community development and farm housing, and would expand federal housing research.

Strong bipartisan support promises passage of the bill with little change when it comes up for Senate vote. Worked out by the Senate Banking Committee as a compromise measure that strikes a happy medium between Democratic and Republican proposals, the bill carried the names of 22 sponsors, eleven from each party, when it was introduced by Senator Ellender.

The Senate may set aside other business to consider the housing bill within a week or two. House action will follow later. According to all present indications, the 81st Congress will approve a bill much like the present Senate measure.

Part one of two

In accordance with the administration's plan (ENR Dec. 9, p. 71, and Feb. 10, p. 11), the current bill is designed as the first part of a double-barreled attack on the housing problem by the present session of Congress. In a report accompanying S. 1070, the banking committee promised prompt action in calling hearings for a second bill to aid privately financed housing. Testimony during the committee hearings had emphasized the need to (1) find means of providing good housing for middle and lower income families, (2) improve FHA mortgage insurance to stimulate production of moderate-priced housing, and (3) revise the federal government's secondary market facilities for GI and FHA insured mortgages.

In its first section, the Senate bill spells out a national housing policy, never before declared in the piecemeal legislation enacted by Congress. It sets up "the goal of a decent home and suitable living environment for every American family" and declares that production of sufficient numbers of such homes are necessary both to the welfare of the nation and to the health and stability of the housing industry. Private enterprise, it asserts, is to be encouraged and assisted to supply as much as possible of the total need; for the rest, local public bodies and farms are to receive government aid.

Provisions for land assembly in the slum-clearance section of the new bill are expanded beyond those of TEW to permit local bodies to acquire open land for community development. As in the older measure that the house rules committee bottled up last year, the local agencies would buy and clear blighted areas—or assemble open tracts—for sale to private firms or local housing authorities at a price that would make economic development possible.

Land purchase and clearance

To assist land purchase and clearing, the bill authorizes $1 billion in loans in a five-year period to the local agencies. As an aid to the local governments in reselling slum-cleared property at an economic price, the measure would allow $500 million in capital grants—also in five years. These grants would reimburse the local governments for two-thirds of their loss—the difference between the cost of the cleared land and the resale price.

In the low-rent public housing section of the bill, the figure of 810,000 living units in six years is a compromise between 1,050,000 in seven years asked by the administration and 600,000 in six years proposed by Senator Taft and other Republicans in this session. Within the total authorizaton, the President would have power in any year to accelerate or retard the nominal program of 135,000 units per year—after advice from his council of economic advisers—between a maximum of 250,000 and a minimum of 50,000.

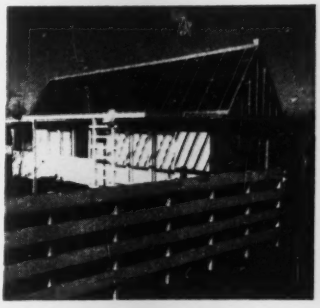
Annual contributions to local housing authorities would be authorized to start at $85,000,000 in the fiscal year beginning July 1, 1949, and to increase by yearly increments to $308 million on July 1, 1953. The subsidy contract for each housing project would run for 40 years, as compared with 60 years in the former program under the U. S. Housing Act of 1937. Not only urban housing, but also rural nonfarm low-rent housing, would be eligible for subsidy.

In the Senate bill, the costs for construction and equipment of low-rent housing would be limited generally to $1,750 per room, with an increase to $2,500 per room permitted where necessary. The higher cost limit would undoubtedly apply in most of the larger cities.

Aids to farm housing and farm buildings would be provided under the bill, which would authorize up to $250 million in loans and $12,500,000 in capital grants, to become available during the next four years. Of equal importance, the bill would call for expansion of technical services on housing to farmers by the Department of Agriculture and would authorize research in this field.

All provisions of the bill except aid to farmers would be administered by the Housing and Home Finance Agency. An important section would have this agency expand its research into a broad-scale attack on the housing problem, taking in economic as well as engineering factors that affect the building and cost of homes. The research section specifically provides that the administrator may make contracts with other agencies and institutions, covering such agreements as the one recently entered into with the new building research advisory board of the national research council for a nationwide study of the conditions retarding acceptance of modular coordination.

Related to the broad scope of housing research, the bill in a separate section calls for a national census of housing in 1950.



SOLAR HEATED house, built by Massachusetts Institute of Technology, should prove whether the sun can compete with conventional heating in New England. In a 400-sq. ft. heat collector under the roof 1,200 gal. of water are stored for distribution to radiant heating panel in ceiling. Equipment is designed to maintain 68° F, but electric heating units stand by for long sunless spells.

DREDGING PUYALLUP RIVER at Tacoma, Wash., will step up flow in the channel and thus prevent its overflowing. Adjacent lands, thus safeguarded from floods, can be developed industrially. Manson Construction & Engineering Co. and Osberg Construction Co., both of Seattle, are doing the $1,700,000 dredging and levee construction job. The railroad bridge above first had to be rebuilt by Manson for $1,096,000.

House gets St. Lawrence Seaway bill

Encouraged by House approval of an appropriation for a new Tennessee Valley Authority steam generating plant, Rep. John A. Blatnik of Minnesota has introduced an administration bill to authorize the St. Lawrence seaway and power project.

The measure, like last year's Senate legislation, would approve, by majority votes of the House and Senate, the agreement between Canada and the U. S. to build the seaway.

It would differ from previous legislative proposals in two vital respects. Under the Blatnik bill, the international agreement would contain no provision for tolls on shipping utilizing seaway navigation facilities, and the federal government, rather than New York State would market the U. S. share of the power to be produced.

The St. Lawrence agreement, contracted by U. S. and Canadian diplomatic representatives in 1941, provided for equal division of the output of the power generating facilities. Total capacity was estimated at 2,200,000 hp. By a U. S.-New York State agreement, concluded in 1933 and revised in 1946, the New York Power Authority would take over the U. S. power facilities and repay the proper portion of costs allocated to power development.

Rep. Blatnik said his bill would return control of the energy output to the Federal Government to insure an "equitable distribution" of St. Lawrence power to states other than New York.

The Blatnik bill, or an identical measure introduced by Rep. Andrew Biemiller, Wisconsin Democrat, is expected to receive early hearings before the House Public Works Committee.

New estimates by the Army engineers of seaway costs were announced recently by Sen. Alexander Wiley, Wisconsin Republican and an advocate of the project. The estimates were based on July, 1948, levels of construction and equipment prices, Sen. Wiley said. They contemplate construction of a 27-foot navigation channel.

They set the total outlay required for the entire seaway development at $966,678,000, of which the U. S. share would amount to $605,203,000 and the Canadian, $361,475,000. These totals would include $31,742,000 already expended by the U. S. and $132,370,000 spent by Canada on works to be integrated with the completed seaway. The Canadian expenditure would include some $131,900,000 spent on the Welland Canal and $470,000 for the Thousand Islands section.

The total remaining investment of $802,566,000 would be divided into an American share of $573,461,000 and Canadian funds totaling $229,105,000.

Senate expected to OK federal power bill

Deficiency appropriation bill passed by House allows $467 million fund for three power projects and flood control work

Senate passage of the $467-million first deficiency appropriation bill for 1949 will set up funds to start work on three new federal power projects before the end of this fiscal year, June 30. The House approved the measure recently after Republicans had failed to eliminate a $2,500,000 provision to begin construction of the $54,000,000 TVA steam generating plant at New Johnsonville, Tenn. The bill was expected to go through the Senate without any power deletions.

Included in the House-passed measure was a $10,500,000 appropriation for three rivers and harbors projects of the Corps of Engineers in the Northwest. Two of them are new. To help meet an imminent power shortage in the area, the President had asked for a quick start on Ice Harbor Lock and Dam and on Chief Joseph (formerly called Foster Creek) Dam. For the same purpose, money had been requested to push construction of McNary Lock and Dam now being built on the Columbia River.

A total of $11,500,000 had been asked for the three projects: $1,500,000 to start Ice Harbor on the Snake, $2,000,000 to initiate Chief Joseph on the Columbia, and $8,000,000 to speed work on McNary Lock and Dam. The House appropriations committee reduced the request by $1,000,000 with the explanation that the lesser amount appeared sufficient to take care of all possible expenditures to June 30, 1949.

Flood control

A similar request for $16,000,000 to continue work on six flood control projects of the Army engineers was reduced by the committee to $14,000,000. The committee recommended that the savings be made out of $11,000,000 originally requested for three of the projects: Wolf Creek Reservoir, Ky., $7,000,000; Fort Gibson Reservoir, Okla., $2,500,000; and Center Hill Reservoir, Tenn., $1,500,000. Sums asked—and approved—for the other three were: Buggs Island Reservoir, Va. and N. C., $1,500,000; Detroit Reservoir, Ore., $2,000,000; and Clark Hill Reservoir, Ga., $1,500,000.

The House-passed bill gave the President most of the construction funds and all of the Interior Department policy changes that he sought. The policy reforms are aimed at wiping out limitations imposed by the

Republican 80th Congress. As approved by the House, the bill would eliminate these restrictions:

1. A provision terminating the salaries of Reclamation Commissioner Michael Straus and Regional Director Richard Boke as of Jan. 31. Both men have stayed on at their jobs despite the cut-off of salaries.

2. Limitations on force-account work to eight percent on all projects of the Reclamation Bureau and Bonneville Power Administration. The appropriations committee warned both agencies to contract "all work possible" and to hold force account operations to "a minimum consistent with the government's interest."

3. Ceilings on activities at Reclamation's Denver office, on the bureau's total payroll for personal services, and on numbers of employees in the higher paying jobs.

Tallamy tells producers to teach highway needs

Calling education of the public a "herculean challenge," Bertram D. Tallamy, New York State Superintendent of Public Works, in a recent address, stressed the importance of widespread appreciation of the urgency of road reconstruction.

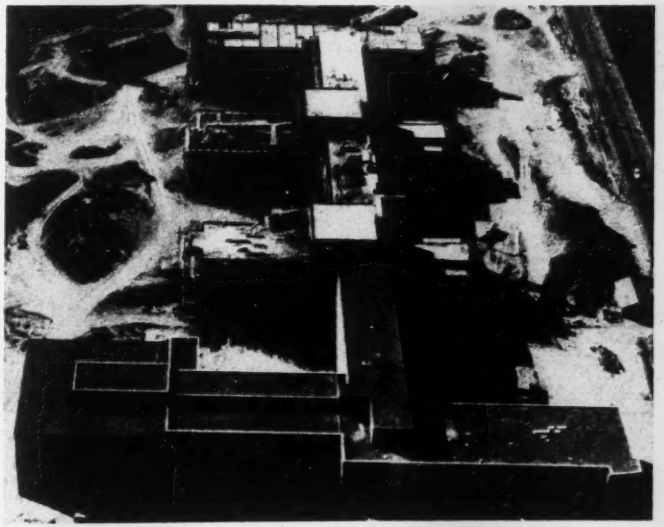
The occasion was the joint meeting in New York of the National Sand and Gravel Association and the National Ready Mixed Concrete Association.

Mr. Tallamy said that education of the public in the need for new and rebuilt highways was the real challenge facing engineers, contractors and suppliers of the construction industry. He said that this challenge must be met if highway financing and building are to be accomplished.

G. Donald Kennedy, vice-president of the Automotive Safety Foundation, stressed importance of the engineering study in an orderly highway program. Outlining the content of a highway report, he said the "need is for long range planning of the finest order."

Thomas S. Holden, president of F. W. Dodge Corp., praised the construction industry and denounced "statism" in connection with public housing. Taking "Construction in a Free Society" as his subject, Mr. Holden said that public housing is just an easy path toward socialization of the industries that are involved in house production.

Brig. Gen. George J. Nold rounded out the four-talk program by pinch-hitting for Lt. Gen. Raymond A. Wheeler in a short review of the program of the Corps of Engineers.



CALIFORNIA VA HOSPITAL—Construction is well under way by Del E. Webb Co. on this $2,500,000 Veterans Administration hospital at Livermore, Calif. Main structure will be seven stories high and of reinforced concrete. It will accommodate 119 beds.

American Bridge Company wins $13 million contract

Contracts for structural steel, cable steel wire and superstructure erection for the $13,731,000 Delaware River Memorial Bridge have been awarded to the American Bridge Co., subsidiary of United States Steel (ENR Feb. 10, p. 19).

This toll bridge is being constructed by the State of Delaware with funds from a bond issue of $40,000,000. It will be located midway between Wilmington and New Castle near the town of Pennsville on the New Jersey shore. The center suspension span will be 2,150 ft. in length, and the two side spans will each be 750 ft. long.

Completion of the steel work is scheduled for June 1, 1951.

States become conscious of highway overloading

A drive against overloaded trucks on Maryland highways is being carried on by the Maryland State Roads Commission with the cooperation of state police. The state-wide drive is being tried as an effort to enforce the law which prohibits a truck from carrying more than 22,400 lb. per axle.

In Indiana, the State Highway Department is planning to sue three truckers whose overloaded vehicles wrecked three bridges in January, according to charges.

The bridges which the state alleges were wrecked by the trucks will cost $250,000 or more to replace. In addition, the highways on which the bridges are located have been closed since the trucks went through the floor or damaged structural members of the bridges.

Gasoline tax raises proposed in 16 states

Sixteen state legislatures now have bills proposing gasoline tax rate increases, a survey by the National Highway Users Conference reveals. In one other state, Maine, a bill was passed to make a 6-cent-a-gallon tax permanent.

Measures proposing two-cent increases in Indiana, Minnesota, North Dakota, Utah and Wyoming would raise the rates in those states from 4 to 6 cents per gallon, and in New Mexico from 5 to 7 cents per gallon. In Michigan, companion House and Senate bills call for a 1.3¢ increase. A Minnesota bill provides a 1½¢ increase, and a similar bill has been proposed in Washington.

Bills providing for one-cent increases are now before the legislatures of Massachusetts, Montana, Nebraska, New York, North Carolina, Oklahoma, Oregon and South Dakota.

AGC HEARS ECONOMIST—Sumner H. Slichter talked to a full house at the opening session of the AGC convention last week in New York. Seated on the dais are Adolph Teichert Jr., president-elect, Carrol M. Shanks, president of the Prudential Insurance Co., Professor Slichter (standing), Dwight Winkelman, AGC president, and H. E. Foreman, AGC managing director.

(*Continued from p. 11*)
getting a mutually satisfactory revision. He felt that continuation of the law in its present form would force labor out of its traditional non-partisan position and ultimately result in government over-regulation of labor-management procedures. He considered this outcome to be one that neither labor nor management wants.

Presidential address

Whether or not government regulation eventually would become over-regulation, a trend toward more and more control seemed clear to Mr. Winkelman, who in his presidential address called for a corresponding increase in the size and strength of AGC., and adequate representation in the nation's capital to see that contractors' requirements are given "proper consideration by the government agencies planning new regulation." In pleading for government stability as an essential to a prosperous construction industry, Mr. Winkelman asked for an orderly rate of change rather than violent and rapid changes that "create more problems and more uncertainty than they solve."

In the field of safety, a persuasive talk was given by Mervyn G. Gaskin, Detroit steel erection contractor. Pointing up his knowledge and enthusiasm on the subject, Mr. Gaskin stated his own satisfaction with an accident-prevention program, which he instituted after a bad safety record had forced his compensation rates up to a prohibitively expensive level. Today his rates are down more than 80 percent below his highest rate. He also cited several examples of the real money savings that lie in continuous accident-prevention programs, and then he mentioned a government-regulation threat, which will become increasingly ominous unless all contractors achieve effective safety and help bring down the serious accident rate in construction. (He had noted that construction is 34th in safety among 40 industries).

The results of a recent membership survey by the Associated General Contractors of America pointed to several optimistic signs. Members felt that construction volume in 1949 will equal or exceed that of 1948, with public work increases offsetting private-work losses; materials, except for steel and in some areas, cement, and construction machinery, except for some of the heavier items, are in plentiful supply after years of shortages; critical shortages of skilled workmen in most communities are being replaced by a more plentiful supply of craftsmen.

This survey was noted in managing director H. E. Foreman's annual report, and attractively printed 23-page pamphlet which briefly summarized the organization's growth in three decades, then outlined the activities of 1948. The original group included fewer than a hundred contractors; today there are more than 5,000 firms in AGC. One of the 1948 features of the report was a listing of several steps that the association is taking to obtain greater efficiency through improved contracts, specifications and procedures. Improvement activities subsequently during the convention formed an important part of division meeting business. The report also noted: That coordination of bid dates for large projects was accomplished during the year; that a new National Jurisdictional Dispute Board operated successfully; that many chapters had effective apprentice training programs; that the association cooperated with the Corps of Engineers by sponsoring a large number of engineer reserve units.

President Winkelman presented an over-all report of the reserve unit affiliation program, noting that 85 units now are sponsored and 73 already are activated. The goal is 100. Maj. Gen. Douglas L. Weart, commanding general of U. S. Engineer Center, Fort Belvoir, Va., praised the AGC's cooperation with the affiliation program, stating that the program is the backbone of engineer preparedness.

The Army received a complementary expression of good will when G. W. Maxon, Dayton, Ohio, chairman of the AGC. legislative committee said that the Army's civil works should continue to be performed by that agency, despite current recommendations for transfer of those works to a civilian agency. This peacetime contractor-Army contact would unquestionably be valuable in that it would enable a smooth transition to war construction.

Apprenticeship

Turning to a subject that has plagued the industry since the war, the convention heard Alvah Libbey, apprenticeship committee chairman, recommend that apprentice-journeyman ratios

Four hours ago this complete elevator was on a truck

They hauled it to the job only this morning . . . and before noon it was set up *and running!* And notice . . . this AMERICAN Material Elevator is all there. There's nothing else to add. As upper floors are added, elevator height is already available to serve them. The setup job is done . . . for good.

Now, compare this fast easy job with the costly, labor-wasting, time-consuming task of cutting, fitting and erecting timbers for an ordinary wooden tower. Think of the hours your workmen will spend keeping it in safe operating shape. Try to figure how much it will cost you to tear it down when the job's finished. Try to estimate the cost of the lumber you're bound to waste . . . and remember, with a wooden tower, you'll be repeating this expensive process on *every* job! You can eliminate all those profit-whittling costs with an AMERICAN Material Elevator. Doesn't that make sense?

And you don't even have to buy one. Most AMERICAN HOIST construction equipment distributors have AMERICAN Material Elevators you can *rent* at low cost for as long as you need them. Though, after you've tried one on a job, you'll likely want to own your own.

PUTS ITSELF UP

● Elevator's own hoist lifts 47 foot tower into position. Additional tower sections of 10 feet each are easily placed with a gin pole to a height of 97 feet.

INTERCHANGEABLE CONCRETE BUCKET

● Big 6 x 6 foot platform is quickly interchangeable with a half-yard self-dumping concrete bucket.

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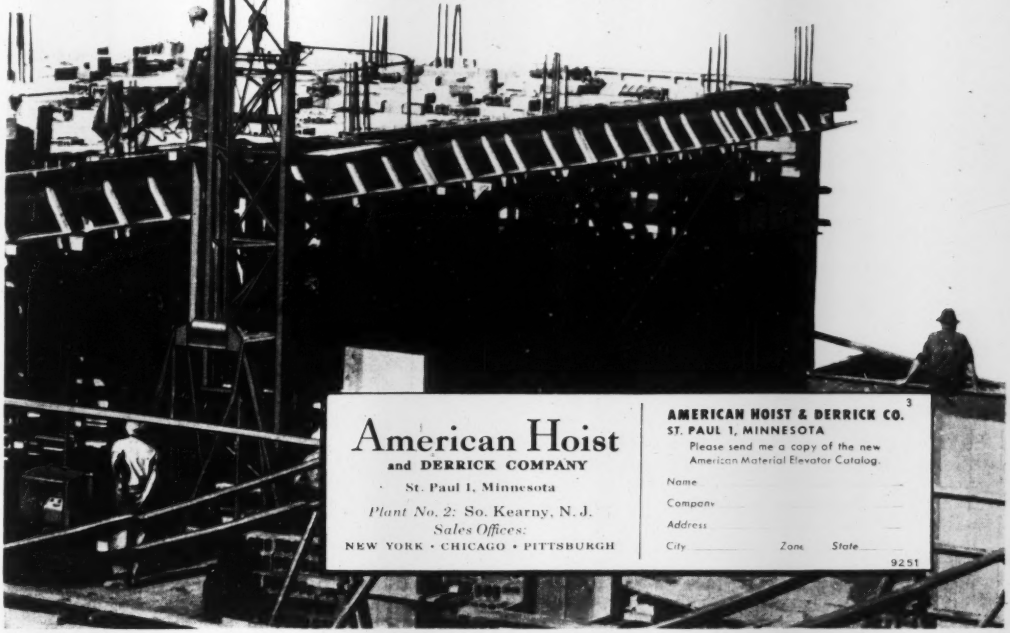

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be maintained and that non-members (of AGC) as well as members provide continuous employment for apprentices. This latter despite any feeling that apprentices do not carry their weight, for such apprentice encouragement will pay off in the long run. Welton Snow, national staff member, emphasized the importance of this farsightedness by noting annual depletions as high as 10 percent in some skilled trades, compared with additions of as little as one percent.

Finance and membership

The AGC income anticipated for 1949 was reported at $441,650, mostly from dues, compared with $340,356 for 1948. Most of the difference was attributed to a dues increase voted last year, but a substantial increase in membership helped. During 1948 the membership increased from 4,500 to 5,009, and it now stands at 5,146.

The membership committee stated that the most likely territory for future expansion lies east of the Mississippi; the western states are quite thoroughly organized. And it was an eastern chapter that won the prize for the best membership growth during the year. That prize was the Cashman Trophy, and the Carolinas Branch won it. Robert Patten is the branch secretary.

Other awards include the Constructiondising Award and several safety awards. The former is made for the best new program for promoting the welfare of construction. It was won by the AGC of Minnesota, Robert J. Hendershott, manager.

Safety awards were made to the following companies:

Building Division. Class A, E. J. Cross Co., Worcester, Mass.; Class B, Thomas H. Bentley & Son, Inc., Milwaukee.

Heavy Division. Class A, Holmes Construction Co., Wooster, Ohio; Class B, C. F. Lytle and Amis Const. Co., Cambridge, Neb.

Highway Division. Class A, Burrell Const. & Supply Co., New Kensington, Pa.; Class B, Thorpe Const. Co., Akron, O.

Resolutions

Nine resolutions were adopted at the closing convention session. Of the nine, three are abstracted:

Materials pricing systems—that Congress immediately eliminate the confusion caused by the cement basing point decision, by allowing materials merchants to establish price systems that will allow the merchants to compete wherever they choose.

Construction education—that members and chapters cooperate with the American Society of Civil Engineers in means of improving the training of engineers, and in encouraging entry into the construction industry; also that AGC student chapters be merged with ASCE student chapters that are willing to include AGC principles of construction operations in their programs.

Labor legislation—that the effect of new federal laws should not be the nullification of state laws, particularly open shop laws.

New officers

In addition to Mr. Teichert the following new officers were elected: vice-president, Walter L. Couse, of Walter L. Couse and Co., Detroit; directors (new) J. W. Brennan, Pocatello, Idaho; J. G. Bartholomew, Dallas, Tex.; C. W. Cunningham, Omaha, Neb.; C. D. Bartholo, Huron, S. D.; W. H. Eriesson, Chicago; F. I. Rowe, Columbus, Ohio; Max C. Harrison, Pittsburgh, and A. D. Blakeslee, New Haven, Conn.

Each of the three divisions held two general meetings during the convention. The plan that was followed was to start the session with a division luncheon that was addressed by an expert in the field. The luncheon was followed by about two hours of committee reports, interlarded with ample open discussion.

Heavy and railroad division

An event of undoubtedly greater importance kept one of this division's scheduled luncheon speakers from appearing. He was Maj. Gen. Lewis A. Pick, and at the same time as the Tuesday luncheon was getting under way in New York, General Pick was in Washington taking his oath of office as Chief of Engineers, U. S. Army.

However, General Pick did wire the group his best wishes, together with praise of the contractors for their generous cooperation during the recent western snow-emergency operations, which General Pick directed.

Rear Admiral John J. Manning, Chief of the Navy's Bureau of Yards and Docks, told of significant projects now under way for the Navy's shore establishment. He then voiced his bureau's desire to streamline contractual procedures, for the urgent reason that preparedness in the atomic age demands the ability to buy tremendous quantities of construction at a moment's notice. And this means removing the stumbling blocks from the Navy's cost-plus-fixed-fee contracting procedures. The Bureau of Yards and Docks asked contractors who are familiar with Navy CPFF work to enumerate stumbling blocks, and to suggest remedies. The contractors voted most often against equipment rental procedures, and against delays in the government accounting office's review of contracts, but they did not agree on remedies.

Streamlining the contracts and specifications for construction-buying agencies occupied much of the division's time. J. A. Henderson, of Winona, Minn., reported on U. S. Engineer contracts. Attending for the present to general conditions of specifications he noted several points at which the allowance of undue discretion to the engineer injects needless

Adolph Teichert becomes new president of AGC

The Associated General Contractors of America have named Adolph Teichert, Jr., of Sacramento, Calif., as their president for the 1949-50 term. As mentioned on p. 11 of this issue, Mr. Teichert was installed last week at the AGC convention, succeeding Dwight W. Winkelman.

The new AGC president heads A. Teichert & Sons, Inc., prominent highway, heavy and railroad construction firm on the West Coast. His company completed paving contracts at several western airports during the last war and also built a substantial part of the Sierra Ordnance Ammunition Storage Depot at Herlong, Calif.

At present Mr. Teichert's firm has a Corps of Engineers contract for extensive levee work on the Ventura River, and holds contracts on Harlan, Dovena and Mariposa dams.

FPC OK's $100 million Texas-California pipe line

To save gas now being wasted in west Texas, the Federal Power Commission last week authorized the El Paso Natural Gas Co. and the Pacific Gas and Electric Co. to construct $100 million worth of new pipeline facilities. The new lines will carry 250,000,000 cu. ft. of gas per day to central and northern California.

By its action, FPC backed up the policy of the Texas Railroad Commission to prevent wastage of natural gas produced in conjunction with oil. The new project will be about 1,000 miles long and include more than 500 miles of 34-in. pipe, the largest diameter ever authorized for natural gas lines.

The FPC order fixed July 1, 1952 as the deadline for completion of construction. Both companies have indicated that they will commence work on the project immediately.

uncertainty into the document. Objection was raised to requiring the contractor's cost data as an aid to making a payment estimate. Where the Army furnishes materials, the value and schedule for delivery should be stipulated and each element of contractor insurance liability should be specified.

Highway division

The first session of this division heard talks by an airport man and a rural electrification man. Phillips Moore, director, office of airports, Civil Aeronautics Administration, cited ways in which his agency is cutting red tape to speed up airport work, and particularly to speed up payments to contractors; for instance, regional offices now have authority to make final payments without Washington's approval.

J. K. O'Shaughnessy, chief, engineering division, Rural Electrification Administration, discussed frankly and optimistically the points of REA, contracting procedures that have promoted apathy and some downright antipathy of A.G.C. members toward REA work. He assured the meeting that the administration's "labor only" contract is on the way out, to be supplanted by the desirable labor-and-material form.

Against a background of information provided by Thomas H. MacDonald, Commissioner, Public Roads Administration, on the problems of keeping an adequate highway program rolling—principally the time lag of 33 months between the apportionment of funds to the states and the completion of an equal amount of construction—the Highways Division carried on a spirited discussion of roadbuilding costs at its Wednesday session. Costs are at their peak, and will now stabilize or recede, was the majority opinion. Improved labor productivity and better materials supply were the favorable factors cited. Offsetting possible cost savings from these sources are possibly higher wages and no indication of reduced equipment prices.

Mr. MacDonald said they had no evidence of lowered costs yet. He could say, that the rising cost curve was accelerating at a slower rate.

Competition for jobs is the big new cost-reducing factor. Nearly all work is being let under the engineering estimates, which, however, are still liberal. It was pointed out that there is a danger that contractors in their eagerness to get work are skimping on depreciation and amortization charges for their machines.

These and other special expenses that contractors must meet from time to time brought up the subject of waiting-time for final payment after a job is completed. Many states have speeded up such payments and have reduced amounts withheld to 5 percent, but others have not. It was the hope of the contractors that the American Association of State Highway Officials would lend its aid in urging more liberal practice on final payments.

Building division

Federal hospital and housing programs were discussed at luncheon meetings of the building division, and specification difficulties received some attention at the sessions that ensued.

The first speaker was George L. Read, chief construction engineer, division of hospital facilities, U. S. Public Health Service. Mr. Read explained his agency's program, whose purpose is to assist states in providing hospitals and health centers.

Raymond M. Foley, housing and home finance administrator, dwelt on housing costs and the Economy Housing program. Costs he considered to be a limiting factor in 1949, a year in which the industry might otherwise yield a record crop of more than a million new units.

Division chairmen

Newly-elected division chairmen were: Heavy and railroad, A. S. Horner (succeeding S. L. Fuller); highway, Carl E. Nelson (succeeding George L. Koss); building, C. P. Street (succeeding A. L. Atherton).

Electric eye controls Truck traffic signals

Traffic signals that do much to speed up truck operation at a blind road intersection on the San Francisco sanitary fill are automatically controlled by an electric eye whose light beam is interrupted by trucks in one of the approaching lines of traffic. The "eye" actuates a relay controlling two interlocked traffic signals. When one signal shows a red light that calls for a stop by trucks outside the building, the emerging truck gets a green light and vice versa. So long as the circuits function, one of the two traffic signals is always red while the other is green.

Signals controlled by the electric eye are believed to be more economical in installation and also in maintenance than the plate contact frequently used for roadway traffic control. Placing the beam of the eye 7 ft. above the floor of the roadway prevented interference from people walking past.

To supplement the traffic lights a 26x40 in. mirror was installed at a location and angle such that it gives the driver of the emerging truck a view of the roadway outside on which trucks approach the blind intersection.

TRUCK EMERGING from doorway, left, is protected by red light (at A) that switches to green when truck at right can safely proceed. Mirror (B), a second safeguard, gives driver of emerging truck a view of roadway hidden by building.

This mirror is made with plate glass to avoid the distortion that otherwise would be present and subject to magnification by the distant view. The mirror is backed with copper to prevent the deterioration that would destroy the ordinary mirror in a location where it is exposed to weather.

With these two safety devices trucks approach this intersection with much more confidence than otherwise would be possible and materially speed up traffic. The devices were designed by L. P. Brassy, contracting engineer for the disposal system that operates the San Francisco sanitary fill.

Perspective . . .

Secondary boycott vs. free speech

When the 80th Congress passed the Taft-Hartley Law in June 1947 was it more interested in:

1. Putting an end to the secondary boycott? or

2. Protecting peaceful picketing and "do not patronize" lists?

The National Labor Relations Board raised this question in reaching a decision on whether the carpenters district council, AFL, in Kansas City, Mo., and its business agent, Walter A. Said, were guilty of an unfair labor practice.

NLRB's answer: elimination of secondary boycotts was the primary objective of Congress; the anti-secondary boycott sections of the Taft-Hartley Law supersede the "free speech" section which ordinarily would protect peaceful picketing and "unfair" lists.

The board's decision involved an attempt by the carpenters council to force Klassen and Hodgson, Inc., which hired union carpenters, to stop doing business with Wadsworth Building Co., which didn't. The latter manufactures pre-fabricated houses which Klassen & Hodgson erects.

The board's decision was split, 3-2. The majority emphasized that it was only interpreting the law as it construed its meaning from the text and the legislative history. Any criticism should be directed at the law's author, Congress, those in the majority suggested.

Under the Thomas bill for repealing Taft-Hartley and reenacting the Wagner Act with some amendments, the acts committed by the carpenters union of Kansas City would not be an unfair labor practice. Labor leaders lost no time in bringing this decision to the attention of Congress in support of their position that the Thomas bill should be passed without any of the many amendments being proposed for strengthening it.

The Thomas bill would make a secondary boycott an unfair labor practice only if it were intended to further a jurisdictional dispute between two or more unions. No injunctions would be permitted.

The principal majority opinion was written by members James J. Reynolds, Jr., and J. Copeland Gray. Their conclusion on the intent of Congress was this: Congress intended to end all secondary boycotts. Therefore, it intended to prohibit any activities in furtherance of this illegal objective, including peaceful picketing. The "free speech" provision "does not immunize such conduct."

The dissenting members pinned their argument on the language of the "free speech" section of Taft-Hartley, which states that it is applicable to "any of the provisions" of the law. They protested that the decision of the majority would also prohibit "advertisements in newspapers, speeches over the radio, in public halls, and in auditoriums, miles distant from any employer's plant."

N. J. seeks a director of environmental sanitation

In the reorganization of the New Jersey State Department of Health, provision has been made for a director of environmental sanitation. The position would have a salary range of from $9,000 to $12,000 a year. The department is now seeking a suitable man or woman for the post.

The requirements include formal and other education and training showing attainment of the level represented by graduation from college with a degree of Bachelor of Science in sanitary engineering, or in civil engineering, and the possession of a degree of Master of Public Health, or Master of Science with specialization in sanitary science, sanitary engineering or public health. There are other requirements to be learned upon application which must be made by April 1, 1949, to the N. J. State Department of Civil Service, Trenton, N. J.

Anti-pollution measures advance in Wisconsin

The Wisconsin state committee on water pollution has ordered eight cities, two villages and seven industrial plants in the Chippewa River basin to install sewage and waste treatment facilities, to be completed not later than Dec. 31, 1950.

In the meantime, legislation to prevent any new sources of lake and stream pollution, or further tolerance of present pollution, has been proposed by several state senators.

Under the program proposed, dumping of any polluting material into Wisconsin waters would become illegal after Feb. 1, 1951. Any new industry starting before then would have to obtain approval of its waste disposal system by the state committee on water pollution.

Propose desilting basin for Cuyahoga River

A hearing will be held soon by the U. S. Corps of Engineers in Cleveland, Ohio, on a request by the Chamber of Commerce for the construction of a desilting basin in the Cuyahoga River. This would hold 10 years' accumulation of silt and eliminate the need of costly maintenance dredging. The government is spending close to $300,000 annually for river dredging, in addition to the sum spent by industrial firms in maintaining required depths within 40 ft. of their docks.

The proposed basin would be built about 12 miles above the head of navigation, just north of the Cuyahoga-Summit County line. The chamber several years ago moved to establish such a basin, but abandoned the idea when it was learned that the 100-ft. dam proposed would be too costly and would inundate two villages.

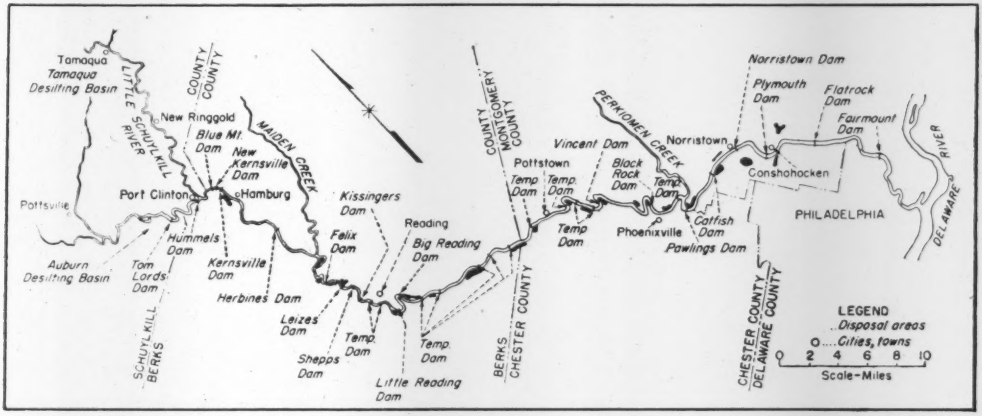
The possibility of erecting a smaller dam which would not flood so great an area will be studied.

Dr. Hyde represents U. S. at WHO meeting in Geneva

Dr. H. Van Zile Hyde of the Department of State, U. S. Representative on the executive board of the World Health Organization (WHO) is attending the third session of the executive board that opened at Geneva, Switzerland, Feb. 21. Dr. Hyde serves as chairman of the U. S. delegation.

President Truman named Abel Wolman, professor of sanitary engineering, Johns Hopkins University, as alternate U. S. representative to this session. Serving as advisers are Howard B. Calderwood and James E. Anderson, both of the Department of State.

The United States was elected as one of the eighteen member states entitled to representation on the WHO executive board at the first World Health Assembly in Geneva last summer. On October 18, 1948, the President approved the designation of Dr. Hyde as U. S. representative, subject to confirmation by the Senate.



SCHUYLKILL RIVER DESILTING PROJECT dam and basin locations. Downstream limit of state work is Norristown dam.

Pennsylvania cleans its worst river

From Tamaqua to Norristown and on to Philadelphia, the Schuylkill River has carried the drainage from a great and active anthracite coal mining district for scores of years. Carried is really not the right word—hardly a mile of the streambed is not blighted by deposits of rock, silt and coal dust (culm) that have been left behind as the waters flowed.

Until the State of Pennsylvania decided to eliminate the nuisance, culm deposits choked the Schuylkill bed, impairing the floodway and forcing high waters to spread over greater areas. Deposits between Auburn and Norristown ranged from 6 to 26 ft. in depth and totaled 24,400,000 cu. yd. in volume. Below Norristown probably 16,000,000 cu.yd. packed the river to Fairmount Dam. Mine waste pollution and acid mine drainage, plus municipal and industrial pollution made water treatment costly and unsatisfactory.

The nuisance has not been eliminated yet—but a bold start has been made.

In a $35,000,000 project, the Water and Power Resources Board of Pennsylvania's Department of Forests and Waters is removing the culm deposits bodily from the river bed and transferring them to river-side basins.

So far 18 contracts have been let for a total of $10,000,000, and $25,000,000 more will be awarded in 1949, subject to necessary legislative action. Although little more than the first million cubic yards of culm actually have been moved, six basins are complete and four more will be finished soon. One permanent dam is under construction, and four new hydraulic dredges are almost ready for service. Completion of the state's share of the project should be achieved in 1951.

While culm removal is the most spectacular part of the Schuylkill River Desilting Program, elimination of mine wastes at the source also is significant. Enforcement of state anti-pollution laws already is keeping new mine wastes out of the stream.

Another source of pollution—mine waste dumps that will continue to erode—cannot be eliminated. Instead, the normal erosion from these dumps will be allowed to collect in permanent reservoirs in the headwaters. Intermittent pumping from the reservoirs, estimated to yield 100,000 tons of coal fines annually, will continue until the culm piles become stabilized, perhaps in 7 to 10 years.

One sidelight that may be a bright one indeed is the prospect of making the project at least partly self-liquidating. Material recovered by dredging has a high carbon content, averaging 50 percent. After being deposited in the impounding basins and dewatered, it will be sampled and offered for bids by prospective purchasers. Interest has been shown by various industrial processors and it is hoped that substantial costs will be recovered from the disposal of the dredged culm. Coal operators already are benefitting from the program, because they are selling the coal reclaimed by their own desilting basins, which were mandatory under the anti-pollution law.

The desilting project

The overall desilting project consists of:

(a) Preventing the further intrusion of mine wastes into the headwaters.

(b) Constructing a desilting dam below the confluence of the two main river branches, at Kernsville, to act as a primary catch-basin for eroded

SCHUYLKILL PROJECT CONTRACTS, 31 DECEMBER 1948

Cont. No.	Description	Contractor	Base Bid	Pct. Comp.
1	Core Borings, etc.	Sprague & Henwood, Inc.	$21,920.00	100
2	Demolition of Dams*	Conduit, Foundation Corp.	334,130.50	100
3	Four Electric Dredges	American Steel Dredge Co.	1,084,600.00	75
4	Electric Power Eqpt.	W. V. Pangborne Co., Inc.	314,294.60	90
5	Kernsville Basin	S. J. Groves & Sons Co.	150,828.60	100
6	Cross Keys Basin	S. J. Groves & Sons Co.	136,538.50	100
7	Stoudts Ferry Basin	S. J. Groves & Sons Co.	222,441.00	100
8	Epler Basin	S. J. Groves & Sons Co.	117,489.00	100
9	Leizes Basin	S. J. Groves & Sons. Co.	281,403.50	100
10	New Kernsville Dam	Poirier & McLane Corp.	2,199,730.00	50
10-E	Lighting, Kville Dam	Henkels & McCoy	5,994.80	15
11	Dredging in River	Eastern Engineering Co.	2,482,200.00	20
12	Riverside Basin	James P. Leaming	196,391.00	95
13	Dredge Pontoons and Pipes	American Steel Dredge Co.	598,367.50	10
14	Linfield Basin	S. J. Groves & Sons Co.	184,330.00	100
15	Mingo Creek Basin	S. J. Groves & Sons Co.	259,429.50	65
16	Black Rock Basin	S. J. Groves & Sons Co.	236,481.00	33
17	No. Valley Forge Basin	S. J. Groves & Sons Co.	366,256.50	6
		TOTAL	$9,192,825.40	

*Tom Lords, Hummels, Blue Mountain, Herbines and Kissingers.

CULM DEPOSIT. This bank was removed in preparation for Kernsville dam work.

DREDGING BEGINS. First on the job, this dredge worked upstream from Felix dam, near the city of Reading.

DISCHARGE END of dredge tail pipe. Water and culm flow into a silt-impounding basin. Processors may recover considerable coal from basins.

mine wastes from the headwaters deposits. An additional desilting dam on each main tributary will be constructed after the completion of the Kernsville dam.

(c) Dredging the existing deposits of culm in the river below Kernsville, and depositing the dredged material in impounding basins ashore. These basins will have an average capacity of more than 1,000,000 cubic yards.

(d) Sluicing or bulldozing bank deposits into the river along a 40-ft. strip on either bank, the bank to be cleared of brush and obstructions and stabilized at a 1 on 10 slope. Advantage has been taken of the normal ability of the river to clean itself, by the removal of five old navigational dams that had been breached by floods. This has moved culm to the pools behind other intact navigation dams, where is can be handled by the dredges.

(e) Constructing temporary dams for dredge flotation in river sections of low gradient. These dams will be removed after the dredges have finished. Ultimately, it is proposed to retain only Felix, Black Rock and Norristown Dams in the section of the river that is the commonwealth's responsibility. Below Norristown, the responsibility for dredging and channel rectification is the federal government's, through the agency of the U. S. Corps of Engineers.

(f) Bank stabilization and channel rectification, to improve the normal hydraulics of the river.

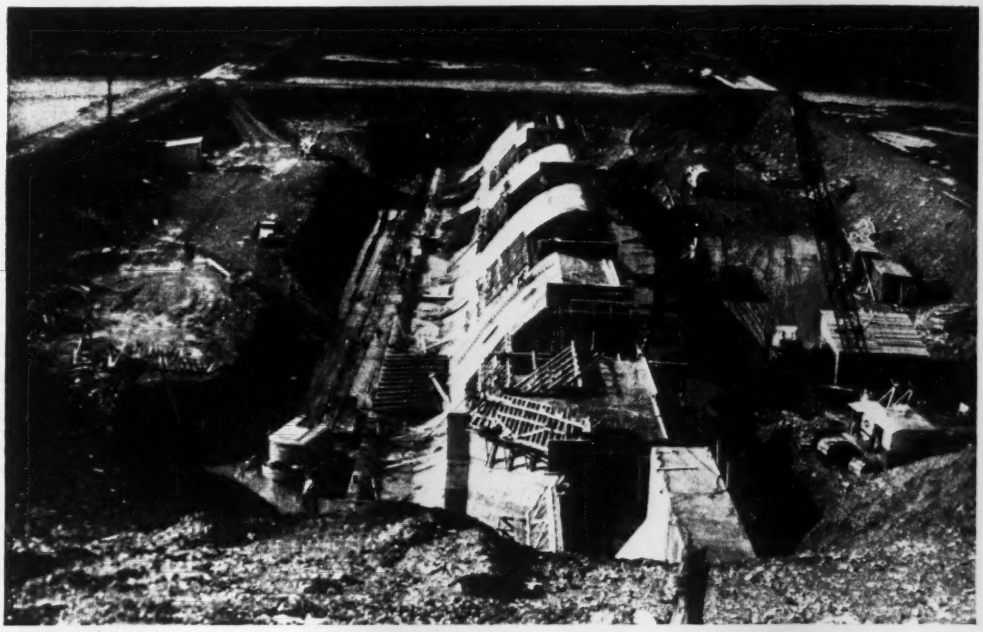
(g) Maintenance dredging, to prevent further silting from eroded deposits, by removal of accumulations at the three principal desilting dams, at Tamaqua, Auburn and Kernsville.

Kernsville dam

Kernsville dam is the first of three to be placed under construction. It is to be of concrete gravity type, 800 ft. long, with spillway section 600 ft. long. Height from bedrock to overflow elevation will be 40 ft. The reservoir will cover 42 acres and average 14 ft. in depth along the river bed.

Site conditions make construction a relatively simple matter. Unweathered shale of good bearing capacity lies near the original river bed level, and native river bank materials are impervious.

Construction began in the middle of 1948, with stream-diversion and cofferdam work. Contractors excavated a diversion channel near the right bank, and completed the diversion by building a rip-rapped earth wing-dike out from the left bank, about 100 yd. upstream from the dam's axis. Next, they stripped deep culm from the dam (left half) area and built up a three-



KERNSVILLE DAM. The first stage of this construction was completed in 1948. A second stage will start soon.

sided earth cofferdam, of impervious material weighted with gravel. The cofferdam projected from the steep left bank to enclose a rectangular area large enough for work on the dam's left abutment and on 380 ft. of overflow section. Two temporary bridges, each in line with a transverse side of the cofferdam, crossed the diversion channel to connect the working area with contractor's shops and concrete-batching plant.

Excavation within the cofferdam removed alluvium and about 10 ft. of shale and loose rock. The first stage of the dam then was poured, by sections, in 5-ft. lifts. Transit-mix trucks served 2½-yd. concrete buckets, which were handled by crawler cranes. Plywood forms for the overflow section, lined with a non-absorbent material, were adjustable to varying surface shapes: Proper combinations of tension bolts and wedges, in conjunction with heavy walers, yielded the desired shapes.

Treatment of river water for concrete-curing was a minor feature of work at Kernsville. A shallow pool between the diversion dike and the cofferdam acted as an effective settling pond. Clear water from the pond remained too acid for safe curing (pH 5), so the contractor piped the water to a tank inside the cofferdam. At the tank he added lime as a neutralizer, then pumped the water to concrete that was being cured.

The Kernsville dam contractor now is preparing for the second portion of his job. He will re-divert the river, through gates in the first dam section, and finish the construction inside a new earth cofferdam projecting from the right bank. Work on dams at Auburn and Tamaqua will begin in 1949.

Impounding basins

Silt-impounding basins form the second important group of fixed installations in the Schuylkill program. Locations of the basins appear on the accompanying map. Perhaps the most significant part of the basin job is land-acquisition. In all, the commonwealth has acquired title to more than 1,500 acres, with additional areas under negotiation. (In addition, the commonwealth is acquiring rights-of-way and easements on a 40-ft. strip all the way along both banks of the river.)

Construction of a basin is simple. Carrying scrapers and other excavating machines move earth from the interior to the periphery, to build up a dike; contractor forces place rip-rap on river-side dike faces. The only special structure in the dike is an outflow waste weir consisting of concrete frames closed by concrete-slab stop-gates.

So, far, seven basins are complete and 3 more now under construction, will be finished this spring. Ten or eleven more basins will be constructed as soon as additional funds are available.

Dredging

Dredging began in September 1948. A contractor moved a 20-in. diesel dredge into the river section between Hamburg and Reading. That dredge soon was pumping 75,000 cu.yd. a week into the impounding basins. The same contractor will put another dredge in service at the site in early 1949.

The bulk of dredging, however, will be handled by four state-owned 15-in. electric hydraulic dredges, rated at 100,000 cu. yd. per month. These dredges, which will be completed this year, will operate under service contracts throughout the life of the desilting program.

Each dredge is built up of nine pontoons, and is demountable to facilitate moves from pool to pool. Overall length will be 77 ft., beam 30 ft. and draft 3.5 ft., with a 3.5-ft. freeboard. The main engine is a 12,000-hp. electric motor, driving a 15-in. centrifugal

ALSO RECORDED

Helicopter Delivery—The United States Forest Service recently solved the problem of getting construction timbers to the top of 2500-ft. Pequawket Mountain near Kearsage, N. H., by using a helicopter. The timbers will be used to rebuild a fire lookout station. An average of 250 lb. was carried on each trip.

Icy Road—Yellowknife, Canadian gold-mining town on the shores of Great Slave Lake, is to have road connection with the outside world for the first time in its history. The Canadian government has awarded a contract to the Bond Construction Co. of Edmonton, Alta., to build a road from the road-head at Hay River to Yellowknife, a distance of 155 miles, at a cost of $28,000. The cost is so low because the road will consist merely of a route cleared across the ice of Great Slave Lake.

Men at Work—An 8 mm. candid movie of personnel "at work" was a surprise feature at a recent social gathering of the city division of engineering at Toledo, Ohio. A draftsman in blissful slumber at his desk, another office worker nibbling away at a smuggled sandwich, and a lounging field crew watching one man work his head off were typical scenes.

Bigger and Better—Not satisfied with the biggest bridge and the biggest harbor, a San Francisco architect has proposed the biggest building to end all biggest buildings. Angus McSweeney presented the mayor with a plan for a 440-story tower, 16 blocks square at the base, 5,280 ft. high, and housing among other things: 300 elevators, 10,000 offices, 1,000 stores, 50 schools and 50 movie theaters and 100,000 apartments. Hailing his plan as a solution for the current housing and building shortage, Mr. McSweeney told newsmen, pessimistically, "I don't look to see this building erected."

Worked Too Well—Citizens of Monroe, Ore., during the recent West Coast cold spell, left their faucets running all night to keep pipes from freezing. It worked. The only catch was that no one in Monroe had any water the next morning. The municipal reservoir had run dry.

Nerve—Police of Norwalk, Ohio, have been alerted to find the man who has been charging 25 cents to motorists who park their cars evenings on the city's new, free parking lot.

Pigs is Pigs—Pigs, 50,000 of them, are being sought by the Los Angeles Board of Public Works. The Fontana Farm Co., present purchaser of over 200,000 tons of garbage annually from city collections, has notified the board that it will liquidate at the end of the present contract in September, 1951. Los Angeles citizens have been feeding Fontana hogs in this way for more than 25 years. (ENR, Oct. 3, 1946, v-p-450).

pump. At 515 rpm. the pump will deliver 9,000 gpm. against a 250-ft. head. The latter, with a 75-hp. motor to the cutter head, will cut 4 to 20 ft. deep. Power is to be provided at seven riverside stations. Portable substations will step 33,000 volts down to 4,610 volts, the dredge operating voltage. A power cut of one cent per kilowatt is anticipated.

The river bottom is primarily ledge rock or gravel. In general, dredging will leave 6-12 in. of culm in place. Tail pipes from the dredges run on pontoons to the shore, then along 40-ft. right-of-way to the impounding basins.

The Schuylkill desilting program is the responsibility of the Pennsylvania Water and Power Resources Board, under the Department of Forests and Waters, Harrisburg. M. F. Draemel is secretary of the department and chairman of the board, with E. S. McCawley as his deputy, in charge of the Schuylkill project. The project has Federal participation in that all of the work between Norristown and Fairmont Dam in Philadelphia will be accomplished by the U. S. Army Engineers. This program was conditioned on certain obligations on the part of the Commonwealth. These obligations will be met by Schuylkill project work in time for Federal participation to begin in June 1950.

The full conditions of obligation are contained in USED Reports, 79th Congress, 2nd Session, HD529, dated 1946.

All engineering and field construction supervision is performed by a joint venture contractor, called Schuylkill River Project Engineers. The joint ventures, with their special domains in parentheses, are: (1) Frederic R. Harris and Frederick H. Dechant (dredging, disposal work, channel training); (2) Day and Zimmerman, Inc., Philadelphia (general and construction management); (3) Albright and Friel, Inc., and (4) Justin and Courtney, both of Philadelphia (desilting-basin and dam design). The engineers operate through an executive committee, of which Mr. Dechant is executive officer. G. R. Kent is project coordinator. W. K. Thrush is resident engineer at Kernsville Dam.

British Columbia bares $90 million building plan

A $90,000,000 expansion program—involving railway, highway and power development, and large-scale public works—will be undertaken by British Columbia over the next five years.

The program, announced by Premier Byron Johnson in the Legislature as an extraordinary expenditure, includes $15,000,000 in power development, and over $13,000,000 in development of the government-owned Pacific Great Eastern Railway, both projects getting an immediate "green light."

Other projects include: a new $10,000,000, 3-year highway construction program, to begin this year, a 5-year hospital building program, with federal and local aid, to total $20,000,000; school buildings costing $9,600,000 (of which the government pays half) authorized for the coming year; a new $2,000,000 government office building for Victoria, capital city, to go ahead with other general building projects; an additional $1,500,000 for completion of University of British Columbia expansion program at Vancouver, including a general biological and science building and medical structure, to proceed almost at once, and an additional $3,000,000 for 20 irrigation projects in the interior of B. C., details to be announced later.

Pacific Great Eastern Railway will be extended 83 mi. from Quesnel to Prince George, in the northern interior, to connect with the Canadian National Railways line, providing access for interior mills, cattlemen and farmers to the prairie market, and the southern end of the rail line, which now ends at Squamish, on Howe Sound, will be connected by road with Vancouver, 40 mi. away.

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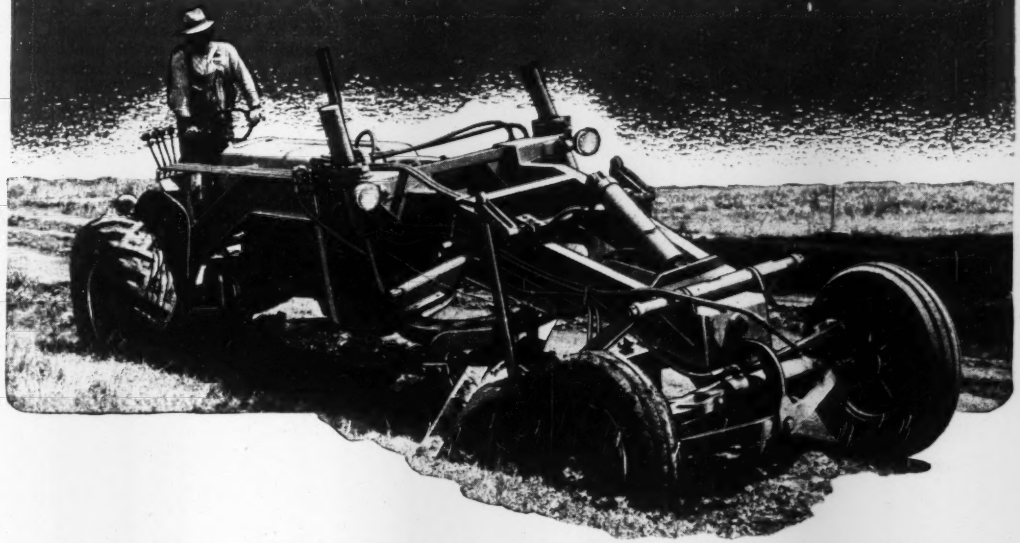

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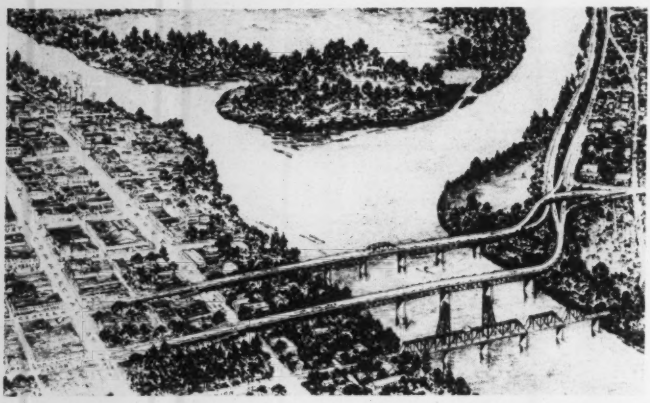

Two new bridges across the Willamette River are proposed to solve the traffic problem of Salem, the capital of Oregon

A traffic face-lifting job for Salem, Oregon's capital city, is outlined in a report to the State Highway Commission by R. H. Baldock, state highway engineer.

The plan calls for an eventual expenditure of $7,600,000 with an "immediate need" program to cost $4,307,000. The report is the result of a year's study of Salem's traffic needs at present and what they may be expected to be 25 years from now.

Two two-lane bridges across the Willamette River are proposed in the plan, each to carry one-way traffic. The present bridge, after being rebuilt, would provide one of the traffic lanes, a new bridge the other. These bridges would connect Salem and West Salem and would provide a connection between highway 99E and 99W, the two routes of the main north and south Pacific coast highway.

A bypass route is provided to carry an estimated 25 percent of traffic around the city instead of through it. Widening of five city streets is included in the plan. Need for the bypass route is emphasized in the report, which says: Salem is the only city of any size now carrying the traffic of the Pacific highway on a two-lane, two-way street.

The Highway Commission, pressed by postwar road requirements all over the state, will tackle the project a section at a time.

Traffic Matters

The Connecticut Highway Users Conference has gone on record in favor of using funds from parking meters and traffic and parking violation fines exclusively for street and highway construction and improvements, off street parking, safety education, and maintenance of streets and roads.

At present funds from parking meters and traffic violations go into the general funds of each municipality. The conference wants these traffic receipts used for traffic improvements.

Parking ramps on the Broadway and Washington Market buildings in Buffalo, N.Y., would cost $2,100,000, according to Public Works Commissioner Elwin G. Speyer. Plans have been filed for both projects.

Mayor Al Feeney of Indianapolis, Ind., has recommended that the board of works take immediate steps to install penny and nickel parking meters in the downtown section.

The Nashville, Chattanooga and St. Louis Ry. Co. has plans for a 400-car parking plaza between Pryor St. S.W. and Central Ave., in Atlanta, Ga., and the city council there is asking the legislature to empower it to acquire, operate or lease downtown parking or garage sites for cars and trucks to be barred from parking on congested streets.

Arthur Blessing, new director of planning for Schenectady, N. Y., has recommended eight municipally-owned and operated parking lots.

Steps to improve traffic in Ithaca, N.Y., include a survey, additional off-street parking, a new traffic light control system, and a coordinating traffic committee.

The Mellon interests are planning a $3,000,000 downtown garage of five floors between the William Penn hotel and the Oliver Building in Pittsburgh, Pa.

A proposal to create a city department of traffic engineering with a tentative budget of $1,575,000 for 1949, has been submitted to the mayor and council of Los Angeles, Calif., following a nine-month survey by three traffic experts. According to the proposal, $650,000 should be allocated for salaries of a director and five-man staff and $500,000 for signals and traffic channelizing devices.

Sanitation Strike May test N. Y. law

In what may prove to be the first test of New York State's year-old law prohibiting strikes in the public services, Yonkers city officials declared last week that 500 striking Public Works Department had forfeited their jobs.

The workers—including garbage collectors, street cleaners and truck drivers—failed to return to work on the day of a 6-in. snowfall. Piled-up garbage added to the tribulations of the city's 150,000 residents.

Acting City Manager John A. Peterson sent letters to 137 applicants on the city's civil service lists, asking them to report for work immediately, and said remaining jobs would be offered to persons receiving unemployment insurance and other relief.

The striking city employees left their jobs in protest over the suspension of 18 men for allegedly refusing to work on Sundays. Union officials insisted that Sunday work—barring an emergency—is optional with the men.

The New York State Condon-Wadlin law, passed a year ago, provides that any public worker who goes out on strike "abandons and terminates his employment," unless reappointed on penalty terms that include five years' probation and no salary increases for three years.

Union officials indicated they were preparing a court battle.

Municipal Notes

City attorney of Delray Beach, Fla., is drawing up an ordinance establishing a uniform set-back of 35 ft. for most business streets.

Legislation is being considered in South Dakota which authorizes municipalities to create plan commissions to make and adopt master plans.

Subway extension on both east and west ends of Rochester, N. Y., is being studied by the city planning commission.

Birmingham, Ala., recently opened its $1,000,000 public health center, said to be the first in the country to be built with federal aid. In all, 63 public health centers have been ap-

proved for federal aid since the national program got under way.

A $7,000,000 rehabilitation and enlargement program for the Fort Wayne, Ind., water works to bring the system to a capacity sufficient for the next 15 to 20 years has been submitted in a survey conducted by Drury, McNamee and Porter, Ann Arbor, Mich., consulting engineers.

The city planning department of Toronto, Ont., is preparing a building by-law, specifying that all new office buildings must have parking facilities for tenants.

Mayor Alloys P. Kaufmann of St. Louis, Mo., has signed a bill providing for the submission to the voters on March 11 of a $15,000,000 bond issue proposal to finance the construction of needed sewer rehabilitation and extension work. The measure previously had been passed by the board of aldermen.

Plans for a proposed $12,500,000 Supreme Court building in the Civic Center of the Borough of Brooklyn, N. Y. City, have been submitted to the City Art Commission by Shreve, Lamb & Harmon Associates, architects.

Jackson, Miss., has annexed several suburbs, increasing the corporate limits by about 88 percent.

Redevelopment of the railroad station area and highway system to make Harmon, N. Y., an improved transportation center for several hundred thousand residents of Westchester and Putnam counties and southern Connecticut is being planned by Westchester County and the New York Central Railroad.

Engineers Smith and Gillespie of Jacksonville, Fla., have estimated that the total cost of necessary sewers and two treatment plants at St. Petersburg, Fla., will be $10,000,000.

It Didn't Work Out—Marvin E. Ray, who resigned as city engineer at Vancouver, Wash., a few weeks ago in order to enter a bid on a city contract, has been reappointed to his former position. His bid was unsuccessful.

Soap Saver—Raymond Faust, water engineer, estimates that Adrian, Mich., residents would save $93,960 a year in soap bills if soft water equipment were installed in the municipal water plant. Adrian water at present has a hardness of 325 ppm.

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2. Covers such property in your office, in transit to a place of greater security, and in the more secure location. Papers taken off the premises for business purposes are covered up to 10% of the total insurance carried, subject to a limit of $5,000.
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3 CIVIL ENGINEERING HANDBOOK

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Elections and Activities

Clifford E. Picotte has been elected president of the Home Builders Association of Albany, N. Y., succeeding Charles Buchman. Other officers: vice-president, William B. Pagano; treasurer, Leo P. Byrnes, and secretary, James A. Rooney. New members of the board of directors are George C. Abele, Sidney A. Friedman, Vincent Grogan, Robert May, Marvin Ayre, John Cunningham, John J. A. Lyons, Karl Erb, Robert Coburn, John Sinko and Philip T. Ellis.

Frederick C. Church recently was reelected general chairman of the Greater Boston Development Committee, a civic group devoted to the development of better highways and other projects in and around Boston.

The Alabama Section, American Society of Civil Engineers, has elected the following officers, Prof. J. M. Faircloth, University of Alabama, head of the civil engineering department, president; Arthur N. Beck, director, Bureau of Sanitation, State Board of Health, first vice-president; J. B. Converse, J. B. Converse Engineering Co., Inc., Mobile, second vice-president. G. P. Willoughby, Birmingham, secretary-treasurer.

T. C. Jones of Fort Worth has been elected president of the Texas Good Roads Association, succeeding R. J. Potts of Harlingen, recently appointed to the State Highway Commission. Jones has been chairman of the Fort Worth Chamber of Commerce highway committee for many years and is past president of the U. S. Highway 87 Association. L. W. Kemp of Houston was elected a vice-president.

The American Metallizing Contractors Association has elected these officers: Peter G. Dennison, president; K. B. Smith, vice-president; and Walter B. Meyer, re-elected as secretary-treasurer.

H. J. Hakala, Mayor of DeKalb, Ill., has been elected president of the Illinois Municipal League, succeeding Mayor S. G. Ingraham, Evanston, Ill. Other officers: Mayor Earl E. Miller, Freeport, first vice-president; and Mayors Henry Ruascher, Aurora, Ill.; James O. Hedrick, Decatur, Ill.; Frank Falley, Mt. Carmel, Ill.; Joseph Lemler, Peru, Ill.; and Luther Burpo, West Frankfort, Ill., vice-presidents.

Alvin H. Hechler, Richmond contractor, has been elected to succeed Garland P. Clay as president of the Virginia Road Builders' Association. Other new officers are: T. E. Ritter, Norfolk, vice-president, and Archer B. Gay, Richmond, secretary-treasurer. New directors are: A. B. Torrence, Elkton; E. V. Williams, Norfolk; W. B. Adams, Roanoke, and J. R. Ford, Lynchburg. W. J. Hardy, Arlington; W. N. Jackson, Roanoke, and G. P. Clay, Richmond, are retained as members of the board of directors.

Officers of the Montana section, American Society of Civil Engineers, have been nominated as follows: John Morrison of Helena, president; John D. Officer of Columbia Falls, first vice-president; Harold Egeberg of Great Falls, second vice-president; and Louis Henke, Jr., of Helena, secretary-treasurer.

Adolph K. Hofer, Fort Wayne, Ind., a civil engineer, has been elected president of the newly-organized Isaac Walton League Soil and Water Council of Northeastern Indiana. Others elected were the following four vice-presidents: L. R. Meyers, Adams County; Carl Romeiser, DeKalb; Don Gilbert, Steuben; and George R. DeWald, Noble. Howard Faust, Auburn, was elected secretary-treasurer.

Members of the American Society of Civil Engineers in the Tampa-St. Petersburg area of Florida will petition the national headquarters for a Florida West section. A few members in this area are associated with the Jacksonville section, but find they are unable to take any part in their meetings because of the great distance between the two areas. After a survey by members in the West Coast area, it was found that interest in a local section was high, with a prospective membership of twice that of the Jacksonville section. An organization meeting will be held soon. Monthly meeting would be held in Tampa, St. Petersburg, Lakeland, Sarasota, Bradenton, Fort Myers, Clearwater, and possibly Orlando.

Robert H. Morse, Jr., vice-president Fairbanks, Morse & Co., has been elected president and treasurer of the Diesel Engine Manufacturers Association. Elected vice-presidents were A. W. McKinney, executive vice-president, of National Supply Co., and O. H. Fischer, president of The Union Diesel Engine Co. Directors are George W. Codrington, vice-president of General Motors Corp. and general manager of Cleveland Diesel Engine division; Perry T. Egbert, vice-pres-

ident in charge of Diesel and locomotive sales, American Locomotive Co.; Robert E. Friend, president of Nordberg Mfg. Co.; Gordon Lefebvre, president of The Cooper-Bessemer Corp.; Walter A. Rentschler, vice-president of Lima-Hamilton Corp.; E. J. Schwanhausser, vice-president in charge of sales, Worthington Pump & Machinery Corp.; Marvin W. Smith, executive vice-president of The Baldwin Locomotive Works; Mr. Morse, Mr. McKinney and Mr. Fischer.

An East Bay Structural Engineers' Society has been formed in the San Francisco Bay area, with Jack Y. Long of the J. Y. Long Co.—Engineers, charter president. MacGregor Graham is vice-president and Russell H. Cooley, secretary-treasurer. The group will supplement the activities of the Structural Engineers' Association of Northern California.

The Seattle, Wash., chapter, A.G.C., has elected as its new president James Cawdrey, vice-president of the Henrik Valley Construction Co. Other officers are: Cliff Mortensen, of Nelse Mortensen & Co., first vice-president; Elmer Edwards, Manson Construction & Engineering Co., second vice-president; Howard Lease, Lease & Leigland, secretary; and Walter W. Harfst, president of the construction company of the same name, treasurer. Don Mowat of A. F. Mowat Construction Co. and John H. Sellen, head of the construction company bearing his name, were elected to the executive committee.

New officers of the Alabama branch, Associated General Contractors of America, are R. Hugh Daniel, president; C. C. Wilborn, first vice-president; Houston Brice, Jr., second vice-president, and J. Val Rives, treasurer.

The Birmingham, Ala., Branch of the National Association of Home Builders has elected H. J. Tillia, president; Roy E. Smith, Sr., vice-president; Levert Andrews, secretary, and Carl Groover, treasurer.

Fred H. Waring, chief of the division of sanitation of the Ohio Department of Health, will receive the Fuller Award by the American Waterworks Association, given in recognition of outstanding service to the public in the field of water supply and sanitary engineering.

Home Builders Association of the Mahoning Valley, Youngstown, Ohio, has elected Paul Main, president; Edwin H. Gensler, vice-president; Burton C. Smith, secretary; and Chris Bode, Jr., treasurer.

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Emory E. Johnson, head of the department of civil engineering at South Dakota State college, has been elected president of the newly organized subsection of the American Society of Civil Engineers. It is part of the northwest section, which includes Minnesota, North Dakota, and South Dakota. Other officers: W. W. Baker, Bureau of Reclamation, Huron, vice-president; E. J. Guldermann, assistant professor of civil engineering at South Dakota State college, secretary; and E. Dake, South Dakota School of Mines, treasurer.

New president of the Tennessee Valley Section of American Society of Civil Engineers is Ernest M. Titus, head of the Tennessee Valley Authority's structural steel department. Raymond Forshay, with the Chattanooga office of TVA, was elected vice-president.

Officers of the North Dakota Society of Professional Engineers are: Harry S. Dixon, N. D. Agricultural College, president; E. L. Lium, University of North Dakota, vice-president; Geo. Tesky, secretary-treasurer.

Prof. O. Neil Olson, head of the department of civil engineering of Marquette University, was elected president of the Wisconsin section of the ASCE. Fred M. Sloane, division engineer of the C.M.St.P. & P. R.R. was elected 1st vice-president, LeRoy W. Empey, of the state highway commission, 2nd vice-president and C. W. Yoder of the Portland Cement Association, secretary-treasurer. New directors are E. H. Schmidtman of the Electric Co., and Prof. James G. Woodburn of the University of Wisconsin.

W. T. Potter, president of Potter & Shackelford, Inc., of Greenville, S. C., who has been elected president of the Carolinas branch of the Associated General Contractors.

Sidney Goldin, manager of Shell Oil Company's asphalt department, has been elected vice-president of District One of the Asphalt Institute. He is a graduate of Georgia Tech.

The southern California chapter, Associated General Contractors of America, has elected six new directors to serve for three years. They are R. A. Smith and H. M. Baruch, as representatives of the Building Division; Ben Griffith, Highway Division; Robert V. Edwards, and Tom Polich, Engineering Division; and R. A. Wattson, R. A. Wattson Co., Utilities Division.

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ENGINEERING SCHOOLS

Churchill and Truman to speak at M. I. T.

In connection with the inauguration of James R. Killian, Jr., as the tenth president of Massachusetts Institute of Technology, an international convocation on the social implications of scientific progress will be held on March 31 and April 1. President Truman and former British Prime Minister Winston Churchill are scheduled to speak. There will be many delegates from foreign universities.

Dr. Killian will be introduced by Dr. Karl T. Compton, his predecessor, at ceremonies on April 2. Among the other speakers at the convocation will be Sir Henry Tizard, physicist and chairman of the defense research policy committee of the British Ministry of Defense; Percy W. Bridgman, Hollis professor of mathematics and natural science, Harvard University; Sir Richard Livingstone, president of Corpus Christi College, Oxford University; Nelson A. Rockefeller, president of the American International Association for Economic and Social Development; Pierre Ryckmans, formerly governor general of the Belgian Congo and now Belgian representative on the Trusteeship Council of the United Nations; Sir A. Ramaswami Mudaliar, Indian statesman, president of the United Nations Economic and Social Council, and Lord Hailey, formerly governor of the Punjab and director of the African Research Survey.

Cooperative Engineering Research Symposium

The University of Minnesota through the facilities of its Institute of Technology and of the Center for Continuation Study will conduct a symposium on cooperative engineering research on March 14-16, on the Minneapolis campus. The symposium will be presented with the cooperation of the Minnesota chapter of the American Society for Engineering Education. It will seek to bring about better understanding and a closer relationship in cooperative engineering research among universities, industries, and governmental agencies.

Among those who have accepted the invitation to appear on the program are Edgar C. Bain, vice-president, research and technology, Carnegie Illinois Steel Corp., Pittsburgh; C. C. Furnas, director, Cornell Aeronautical Laboratory, Buffalo; Dean Charles MacQuigg, Ohio State University, Columbus; Col. Oscar C. Maier, United States Air Force, Wright Field, Dayton; H. N. Stephens, director of research, Minnesota Mining and Manufacturing Co., St. Paul; and Alan T. Waterman, who is chief scientist in the Office of Naval Research, Washington, D. C.

Educational Notes

A new curriculum in engineering administration will be offered next fall in the college of engineering at Rutgers University. It will lead to the degree of Bachelor of Science in Engineering Administration.

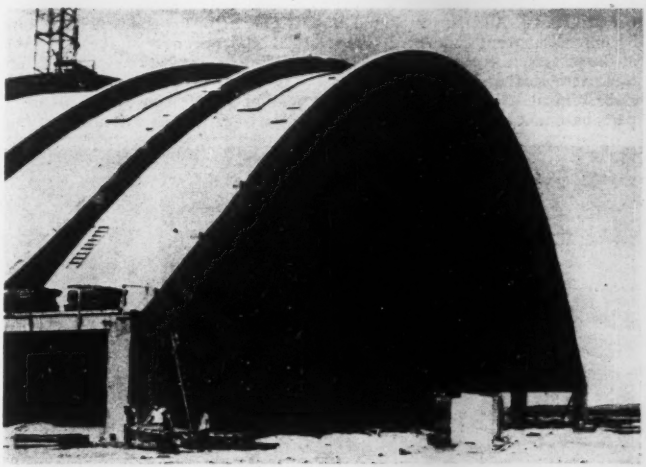
Massachusetts Institute of Technology has announced a grant of $50,000 from the Foundation for the Advancement of Financial Knowledge for investigating building codes, zoning restrictions, operations in the building trades, and the relation of manufacturers to the building industry. The work will be carried on by a staff headed by Rupert Maclaurin, professor of economics.

The North Carolina Water Works Operators Association has accepted an invitation from the Duke University engineering school, Durham, N. C., to hold its annual Water Works Operators School at Duke Aug. 1-5. This is part of the association's program for the certification of water works operators, and in past years has alternated between N. C. State College in Raleigh and the University of North Carolina in Chapel Hill.

The University of Virginia's department of engineering has grown from less than 150 students in 1935 to more than 600 now.

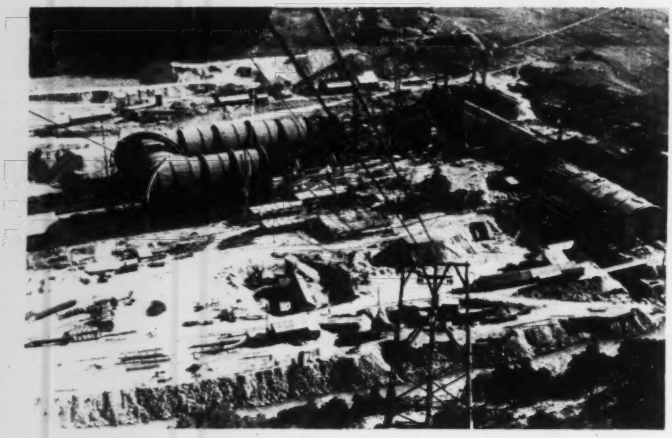
The "listening post" into scientific research and experiments which the University of Alaska has conducted since 1941 for the military, Federal Communications Commission, Coast and Geodetic Survey and the Weather Bureau, is being expanded and its functions added to the curriculum. To house this work, the Public Buildings Administration, FWA, is going to ask for bids around March 22 for the construction of a Geophysical Institute at the university in College, a suburb of Fairbanks.

Ten of the engineering curricula at Virginia Polytechnic Institute, Blacksburg, Va., have been accredited by the Engineering Council for Professional Development.



SHELL ROOF DESIGN STUDY—Typical of shell structures which will be rendered as models and tested at the Fritz engineering laboratory of Lehigh University under the new research project of the Roberts & Schaefer Engineering Co. of Chicago, is this 340-ft. span under construction for the U. S. Air Force at Rapid City, S. D. The hangar has a Z-D shell type reinforced concrete roof. Under the contract with the laboratory, experimental analytical research will be conducted on the design of shell structures of reinforced concrete of the type used in large airplane hangars or in domes of monumental buildings. In such structures spans of several hundred feet are bridged by shells only a few inches thick and stiffened by slender arch ribs.

DEVELOPMENTS ABROAD



FRENCH WIND-TUNNEL—At Avrieux, in the Alps, this massive structure, when finished, will test the latest achievements of French aeronautical engineers.

France—A giant wind-tunnel powered by two 55,000 hp. turbines is being installed in an Alpine valley at Avrieux in southeast France. The wind-tunnel will operate under the national office for aeronautical study and research. (ENR Sept. 9, p. 5).

The bulk of the parts of the tunnel was found in the French zone of Austria and now has been taken to the site in France. The original tunnel at Oetztal, Austria, was found to be only 30 percent completed. Some of the parts were at the site, but nearly half were scattered through Austria and Germany. Most of those scattered parts have now been recovered.

The total length of the wind-tunnel is 390 meters. The diameter varies from 24m. down to 8m. in the test chamber.

The tunnel is completely metallic, with the thickness of the sheet steel utilized varying between 6 and 12mm. The tubes of welded steel sheet are reinforced by main rings about 15 meters apart, with intermediary rings between these main ones. No longitudinal stiffeners were required. Only the main rings are supported on the ground.

Water to power the turbines will come from a dam now under construction at Aussois, through a conduit of 1.4-meter diameter. A similar conduit will be built to a power station at the site completely separate from the wind-tunnel, which will also use the water from the dam.

A special building will be constructed for testing jet engine compressors with speeds from 8 to 15,000 rpm. Jet engines up to 10,000 hp. will be tested.

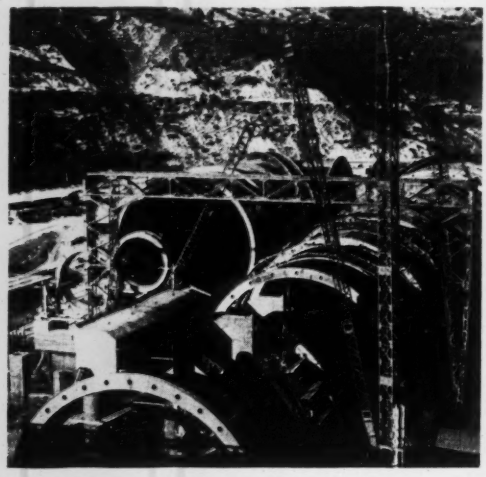
The wind-tunnel is planned for completion in April, 1950.

Housing

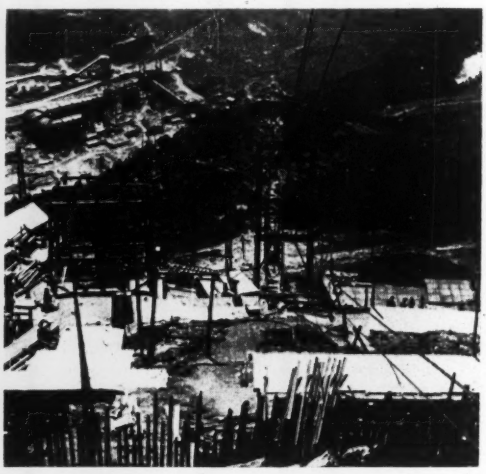
India—To accommodate refugees from Pakistan, India will build a large public housing project in Kalyan, Bombay Province, about 36 miles from the city of Bombay. Providing 20,000 units for housing 100,000 persons, the project is estimated to cost nearly $25,500,000. Another project is to be built in South Deolali, near Poona. In the United Provinces, a third development is planned near Modinagar (Meerut) for 25,000 refugees.

To facilitate the housing programs the government of India has sanctioned loans totalling $81,000,000 to the provincial governments. Bombay will get $42,000,000, the United Provinces $24,000,000, and the Central Provinces $15,000,000.

Argentina—The City of Buenos Aires has announced that plans for a



SHEET STEEL sections up to 24 meters in diameter are reinforced by rings spaced 7.5 meters apart.



STEEP SLOPED CABLEWAY enters the valley bringing tunnel parts and construction materials to the site.

vast apartment project, probably the largest ever to be attempted in South America, has been approved for the Belgrano district of the Argentine capital.

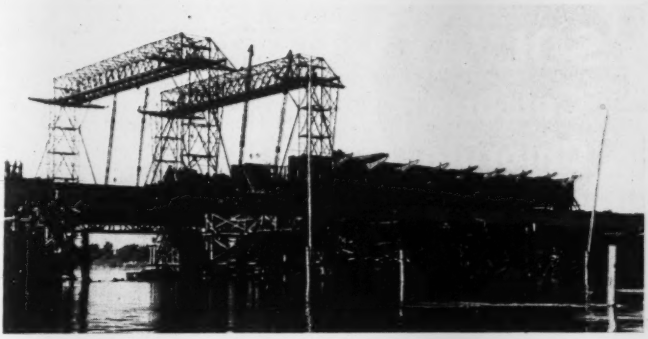
All building has been halted in a zone of several square miles on choice river front property, and on this location will be constructed eighteen "monoblocks" to house 2,500 people in each building or between 40,000 and 50,000 people in all.

The buildings will occupy only 15 percent of the area involved in the scheme, the remaining 85 percent being devoted to parks, gardens, playgrounds, and sports grounds. This is a decided departure from Latin building styles where a house traditionally is built solidly against its neighbor.

Each building, it has been estimated, will cost $8,000,000 and entire project will cost in the neighborhood of $150 million. The cost per housing unit will be about $10,000 to $12,000, including the community building facilities.

Mexico—Low-cost housing in Mexico will be further advanced with the federal bank credit of $8,500,000 which President Miguel Aleman has ordered for the National Government Employees Union to build model homes for its 150,000 members in the Federal District (Mexico City).

Also, the Mexican General Director of Civil Retiring Pensions has assigned engineers to survey and make budgets for model home building for federal and state governments employees in the U. S. border towns of Nuevo Laredo, Ciudad Juarez, Matamoros, Reynosa, Piedras Negras, Nogales, Mexicali, Tijuana and Ensenda.



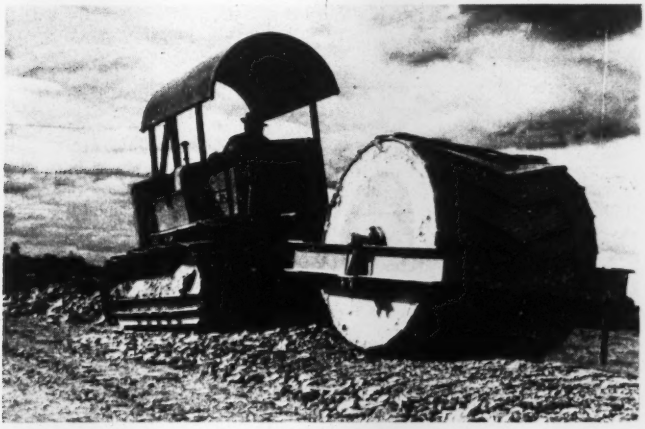
BRIDGE ACROSS THE VISTULA—An east-west road under construction across the city of Warsaw will cross this bridge to Praga, a suburb. Rail traffic, too, will use the structure, which required 7,500 tons of steel milled locally. Completion is scheduled for July 22. (Eastern Publishers Service Photo)

Prefabrication

India—A factory for the manufacture of prefabricated houses at Delhi, India, to cost over $2,000,000 will begin operation in March, Rajkumari Amrit Kaur, Indian Health Minister, announced recently. The factory will produce 5,000 houses per year, each costing about $750 and containing two rooms. Very little cement or steel will be used in the construction. Regular production of the homes will start the latter part of this year, but a few sample houses will be ready at the end of March.

An agreement has been signed with a British firm to supply designs and plans and provide the technical personnel and facilities for the training of Indian technicians. The Indian government will bear all expenditures and also pay a royalty for the use of patents proportionate to the factory's output. The factory will be entirely owned and run by the Indian government.

To determine whether aluminum prefab houses are suitable for India, a sample structure is soon to be built in Bombay by an American firm. It will have aluminum walls, insulated with glass wool.



HERRINGBONE-CLEATED ROLLER was devised by the New South Wales (Australia) highway engineers to deal with large shale boulders. The tractor-drawn unit is a 5-ft. dia. drum filled with five tons of ballast. Cleats are 2x2x¼-in. angles, spaced at 10-in. centers and welded on the drum.

Highways

Mexico—Completion of the paving of the Pan American Highway through Mexico is scheduled for this year, President Aleman announced recently.

Although the Pan American Highway is now passable through all of Mexico, there is a 25-mile stretch just north of the Guatemala border which has not been paved.

Appointment of José Rivera as director general of the newly organized Mexican Road Association was announced recently in Mexico City. This group is affiliated with the International Road Federation.

Mr. Rivera has been identified with highway work since 1925. After he graduated from college in Mexico, he won a two-year scholarship at Iowa State College. From 1928 to 1947 Mr. Rivera was secretary of the Pan American Division of the American Road Builders Association. More recently he has served as general manager of the Portland Cement Company of Mexico. He is president of the Mexico City club of the Mexican Automobile Association. His headquarters with the Mexican Road Association will be in Mexico City.

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OBITUARY

Bailey Willis, 91, emeritus professor of geology at Stanford University and internationally known seismologist, died Feb. 19 in Palo Alto, Calif. Although Dr. Willis predicted the major Santa Barbara, Calif., earthquake of 1925 six months in advance, he concluded from his studies of seismology that earthquake cycles cannot be plotted accurately. He took degrees in mining and civil engineering from Columbia University and served as geologist for the U. S. Geological survey for many years, heading at various times the Appalachian, Cascade Range and Puget Sound divisions. He joined the Stanford faculty in 1915.

A. Pentung Sah, 46, one of China's leading scientists and educators and former professor of engineering at Stanford University, died in San Francisco Jan. 31.

Harry L. Haehl, 72, for many years consulting engineer for the Kings River Water Association, died Jan. 28 in Palo Alto, Calif. He was a graduate of Stanford University.

Carl O. Markle, 60, civil engineer, San Francisco, died Feb. 11. He served with the city's engineering department for many years.

Albert W. Bee, Jr., 67, retired civil engineer, died recently in Velvedere, Calif. He was graduated from Massachusetts Institute of Technology in 1902, entering building construction work in the Middlewest. He retired in 1937.

Ernest E. Easley, 55, civil engineer with the Fielderest Mills at Leaksville, N. C., for the last 30 years, died Feb. 15.

Rex F. Adams, 51, junior engineer with the Watertown office of the New York State Department of Public Works, died Feb. 23. A graduate of Clarkson College of Technology, he was a Navy veteran.

I. I. Oberlander, 74, formerly with the Ohio highway department and engineer for Delaware County, died Feb. 25 at Columbus.

Hugh L. Thompson, 85, retired consulting engineer, died at Waterbury, Conn., Feb. 14.

F. W. Wright, 64, town engineer of Hamden, Conn., died Feb. 22.

Thaddeus H. Stevens, 70, an engineer long assosciated with the harbor commission of Toronto, Ont., died Feb. 17. He was a graduate of Mount Allison University, New Brunswick.

Charles Pulley, 85, construction engineer and retired superintendent of construction at Fort Leavenworth, Kan., died Feb. 11.

Robert A. Weidman, a civil engineer in the Rhode Island department of roads and bridges, Providence, died Feb. 14.

John William Linzee, 81, designing engineer for the Boston Elevated Railway for many years, died Feb. 20 in Boston, Mass. He designed several bridges for the Boston & Maine Railroad. He was a graduate of Massachusetts Institute of Technology and Harvard University. He was born in Calcutta, India, and attended Cambridge University in England before entering M.I.T.

Ernest J. Sullivan, 52, an engineer connected with the Massachusetts Department of Public Works, died Feb. 20, in Swampscott. He was a graduate of the University of Maine and studied at Harvard. For a while he was associated with the engineering firm of Weston and Sampson. In 1937 he was loaned to the states of Kentucky and Arkansas to assist in improving water supply.

F. Walden Wright, 64, Hamden, Conn., town engineer, died Feb. 22. He was graduated from Sheffield Scientific School, Yale University, in 1906. After several years with the State Highway Department he was named town engineer in 1921. He was a life member of the Connecticut Society of Civil Engineers, and served as president in 1946.

William Summerball, 61, a retired Ordnance Department engineer, died Feb. 20 in Washington, D. C. Born in England, Mr. Summerball was graduated from the Armstrong Engineering College. He came to America in 1913 and worked for the Bethlehem Steel Co. and the Savage Arms Co. before entering government service in 1918. He worked at the Watervliet Arsenal, N. Y., at Aberdeen Proving Grounds and recently in the Army Ordnance Department.

Samuel Henry McCrory, 69, chief of the Department of Agriculture's bureau of agricultural engineering when he retired in 1946, died Feb. 18 in Washington, D. C. He was a consultant on drainage problems during World War I.

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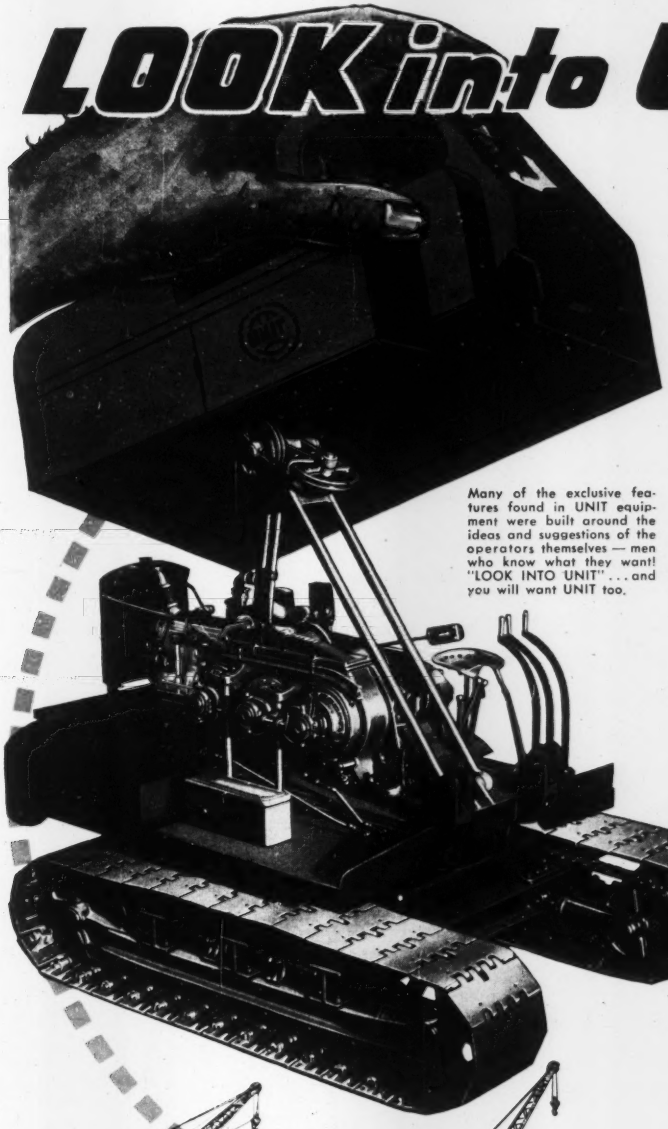

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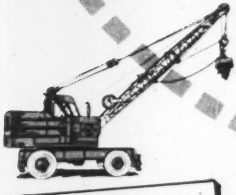

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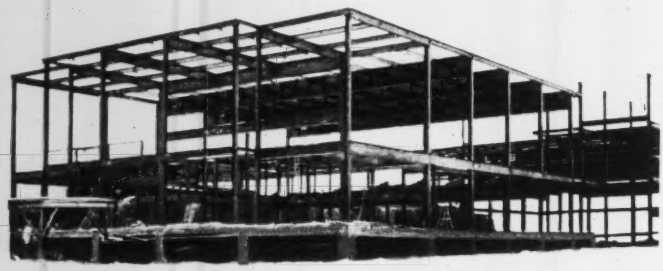

School's First Problem—Solved by Welding

Designers of the new Archbishop Stepinac High School, White Plains, N. Y., specified 12 continuous girder supports for the auditorium and gym roof, ten of them over 80 feet long. In fabricating the steel for the school, Ingalls chose to weld the girders, primarily to save weight. Several other important benefits resulted, besides the saving of 22 tons of steel: The simpler design allowed extreme economy in fabrication. Time was saved, as a smaller variety of parts was required in welding. And the finished girders, which were left exposed, presented an exceptionally smooth, straight appearance.

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Manufacturers' Publications

Asphalt Roofing Products—(83-p. manual) Deals with manufacture, selection and application of asphalt roofing products. Includes 53 pages of text and illustrations on recommended practice in the application of various types of shingles and roll roofings. Tells how to estimate quantities of roofing. Dimensions and weights of typical asphalt roofing products are tabulated.—Asphalt Roofing Industry Bureau, 2 West 45th St., New York 19, N. Y.

Macadam Base Construction—(16-p. booklet) Describes methods of constructing macadam base with aid of Pulvi-Mixer, a leveling as well as a mixing machine powered by gasoline or diesel engine. Tells how difficulties of even distribution and leveling of crushed stone and other aggregates can be overcome. This publication is identified as Bulletin No. 60.—Seaman Motors, Inc., 305 N. 25th St., Milwaukee 3, Wis.

Snow Loader—(8-p. pamphlet) Operating features and controls of Model 522 self-propelled and self-feeding mechanical snow loader. With one-man operation, loads up to 5 cu.yd. per minute. Swivel conveyor discharge enables trucks to drive alongside machine to receive their loads and continue forward with least truck delay. Designed for low clearance with overall height of only 12 ft. 3 in. in operating position.—Barber-Greene Co., Aurora, Ill.

Prest-Glass—(12-p. pamphlet) Describes and illustrates corrugated panels of Prest-Glass which consists of Fiberglas combined with thermo-setting resin formed under pressure and high heat. Screens vision but, in its translucent form, it transmits light freely. Applications include ceilings, walls, partitions and store fronts.—Prest-Glass Corp., 8 East 12th St., New York 3, N. Y.

Hot Water Heating Boiler—Advantages of this boiler described in a folder include: Packaged-ready to operate, wide application, insulated boiler shell, ample clean-out and inspection openings, centralized and enclosed controls, flame safety control, no draft controls required, and dual temperature controls. — Cleaver-Brooks Co., 326 E. Keefe Ave., Milwaukee 12, Wis.

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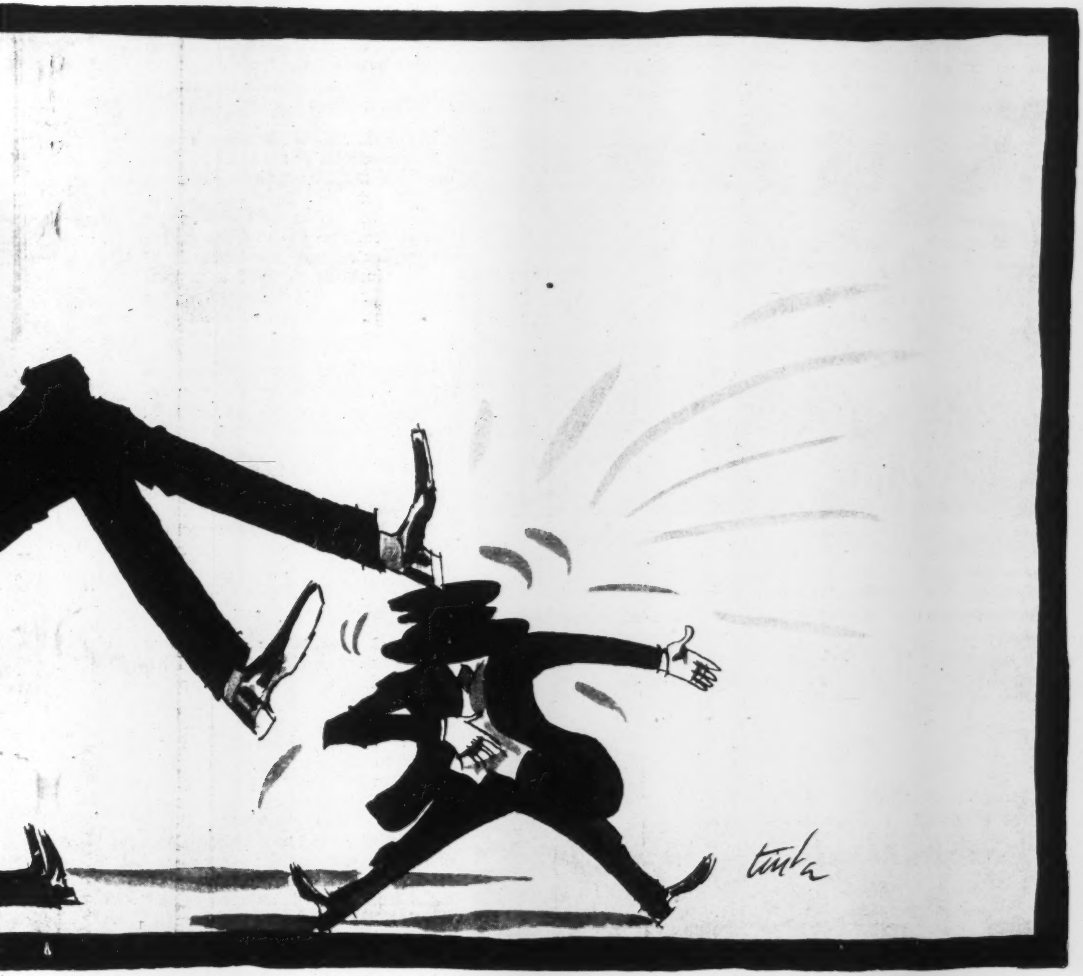

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MEN AND JOBS

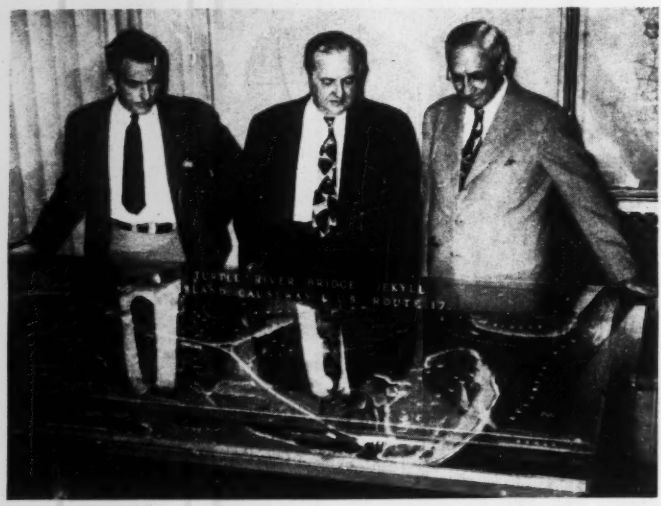
George Cherr formerly on the staff of the New York State Division of Housing, has joined David Solomon, Inc., Washington, D. C., general contractors. An engineering graduate of Brooklyn Polytechnic Institute, during his 8 years with the New York division, Mr. Cherr handled bids and letting of contracts for all state housing projects.

Philip S. Mancini, former public service and traffic engineer at Providence, R. I., has been appointed director of public works for Rhode Island. He succeeds **Oresto DiSaia**, named a member of the Blackstone Valley Sewer District Authority. **Roger T. Chandler** has been named acting head of the Providence traffic engineering department.

W. E. Jones is now assistant to the chief engineer of the Iowa State Highway Commission. **R. C. Boyd** is design engineer succeeding Jones.

Samuel C. Hadden, chairman of the Indiana State Highway Commission, has named district engineers as follows: **Frank McVaugh**, Pendleton, Greenfield district; **George Lutz**, Elkhart, Fort Wayne district; **Jerome Dustin**, Seymour, Seymour district; **John A. Kelly**, Michigan City, Laporte district; **James E. Sheldon**, Anderson, Crawfordsville district; and **John W. Yaw**, Sullivan, Sullivan district.

Key men in an old-time West Coast building construction company, Swinerton & Walberg, gathered recently on the occasion of that firm's 60th anniversary. From left to right they are A. B. Swinerton, partner; J. W. Lindsay, Los Angeles office manager; D. B. Gladstone, Oakland office manager; Fred Pierson, Sacramento office manager; and Richard Walberg, partner. The firm was formed in 1888 by Charles J. Lindgren.



A. V. Shelton, assistant Georgia state highway engineer in charge of federal projects, left, shows the model of the state's $11,000,000 Turtle River project to John C. Beasley and W. R. Neel, who have just retired as state highway director and deputy director and chief engineer, respectively. The model shows the relocation of U. S. Highway 17 near Brunswick, the Turtle River, Cedar Creek and Jekyll Creek bridges.

Col. Richard Lee, former deputy division engineer, Corps of Engineers, Upper Mississippi Valley, has succeeded **Col. E. H. Walter** as district engineer at Fort Peck, Mont. Colonel Walter has become executive officer to the European Theatre engineer at Heidelberg, Germany.

Daniel S. Pelletier becomes a partner in Sanderson & Porter, New York engineers and constructors, after more than 30 years with the company. He joined it in 1917 as resident engineer and construction superintendent. He was graduated from Rensselaer Polytechnic Institute in 1912 as a civil engineer, and previously served the War Department, as well as the Alabama Power Co.

Chester J. Cooper has been assigned as a civilian engineer to the general headquarters of Lt. Gen. Curtis E. Lemay, commanding general of the Strategic Air Force. His headquarters will be at the Orfutt Air Force Base, Fort Crook, Neb. He will have charge of all heating and power plant facilities for 30 bases in different parts of the country. Mr. Cooper has been at Westover Field, Chicopee, Mass., since 1942, supervising all engineering construction.

John L. Kemple, for the last two years, assistant chief, Operations Division, Little Rock District, Corps of Engineers, has been assigned project engineer at Bull Shoals Dam. He succeeds Ralph H. Johnson, who is resigning to accept an appointment with the Atomic Energy Commission. A 1929 civil engineering graduate of Lafayette College, Easton, Pa., Kemple has spent 20 years with the Corps of Engineers, except for overseas service during the war. Johnson was graduated from the University of Minnesota in 1928 and joined the Corps of Engineers two years later. He made studies on the Panama Canal Third Locks from 1940 to 1942, and on the proposed sealevel canal 1946-47.

Francis P. Lowrey, former director of highway safety for the Massachusetts Safety Council, has joined the training staff of the Traffic Institute, Northwestern University. He began with the traffic bureau of the Brookline, Mass., police department in 1932. From June, 1944, to July, 1947, he served as a field representative of the traffic division of the International Association of Chiefs of Police.

Carl Shriver has joined the staff of the Alabama State Planning Board at Montgomery. Colonel Shriver, who retired from the U. S. Engineers recently after 28 years service, will assist in a water resources investigation already under way by the board, and will aid in industrial planning.

Marc Boyer, registrar of the Corporation of Professional Engineers of Quebec, has been appointed deputy minister of the federal Department of Reconstruction at Ottawa. He is a graduate civil engineer of Ecole Polytechnique, Montreal, and has worked in Trail, B. C., in Quebec City, and in Montreal. The Department of Reconstruction is an outcome of the wartime Department of Munitions and Supply and is now responsible for the dominion government's activities in preparing a "shelf" of public works projects for use whenever economic conditions demand such assistance.

Cyrus S. Waldren, for 11 years with the Chillicothe, Ohio, city service department, has been named deputy county engineer of maintenance for Ross County.

R. H. Zeigler, formerly Texas State Highway Department resident engineer and assistant district engineer at Del Rio, has been made senior resident engineer at Kerrville. He succeeds **Charles T. Holmes** who has been made assistant district engineer at San Antonio. Zeigler has been with the Texas Highway Department for 20 years, and has a degree in engineering from the University of Colorado.

R. G. Pepin, formerly city engineer of Pampa, Tex., has been made city manager, succeeding **Steve Mathews**, resigned to become city manager of Lubbock. Pepin has served as an Army engineer and as a soil conservation engineer. He is a graduate of Oklahoma A. and M. College.

Exline Martin, formerly surveyor of Ellis County, Tex., has been made engineer of Ellis County, succeeding **W. R. Linsay.**

Herman V. Yank, formerly with A. W. Earl, San Francisco consulting engineer, has opened his own office in Fresno, Calif., for a civil engineering practice, specializing in structural-type work.

Charles F. Stuart, Halifax, N. S., has been transferred from the Halifax engineering staff of the Canadian National Railways, where he had been for 25 years, to the regional engineering base of the line at Moncton, N. B., as assistant engineer and rail inspector. He started his railway connection as a porter in the Halifax station, and had educated himself in engineering before and after being taken on the CNR engineering staff.

F. W. Chambers is manager of production for Koppers Engineering and Construction Division, Pittsburgh, Pa., and **A. B. Fisher, Jr.** is chief engineer of the division.

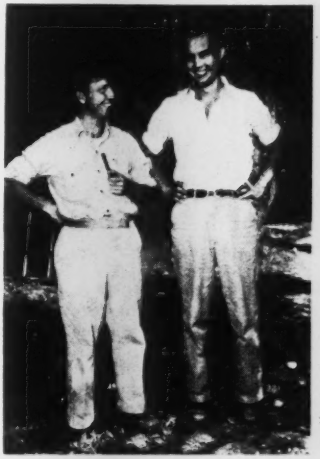
Kenneth B. Anderson has been appointed chief deputy engineer of Franklin County, Ohio, at Columbus.

Col. Albert L. Lane, Corps of Engineers, U. S. Army, has been appointed executive officer for the Great Lakes Division office. He replaces Col. Dave Morris who has become district engineer at Duluth, Minn. Colonel Lane was graduated from the University of California with a civil engineer degree. He entered the Army during the first world war and has served in various troop and engineer assignments in this country, at the Panama Canal, and overseas in the Southwest Pacific during the last war. Before taking his present post, he was engineer for the U. S. Army in the Pacific at Honolulu.

He was assistant city engineer of Pontiac, Mich., for eight years, and previously was with the Ohio State Highway Department.

N. S. Bubbis, chief engineer, Winnipeg, Man., waterworks, has been named manager of the Greater Winnipeg Water and Sanitary districts.

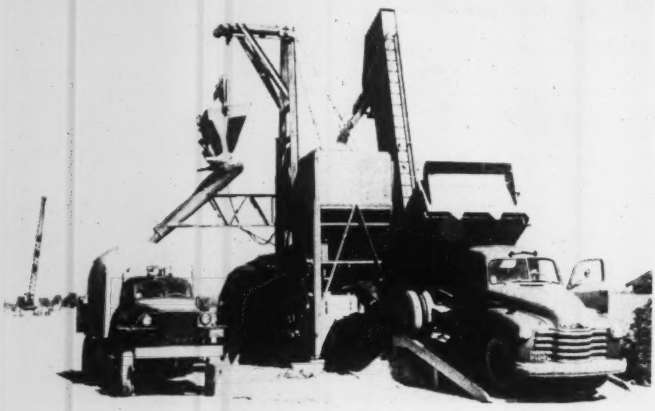
Victor M. Meek, chief engineer of the Dominion Water and Power Bureau, Ottawa, Ont., has retired.



Top management personnel on the construction of a 1,000x75-ft. steel and concrete deck wharf on concrete-filled caissons, for the American Sugar Refining Co. near New Orleans, includes **W. H. Bruce**, left, resident engineer for Parsons, Brinckerhoff, Hall and Macdonald, consultants; and **James P. Cummins**, general superintendent for the Raymond Concrete Pile Co., contractors on the works.

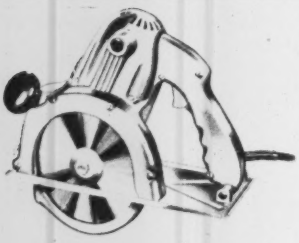
Making an inspection of the Technical High School swimming pool at Oakland, Calif., are left to right, Robert Bruen, heating engineer; I. M. Johnson, architect; W. C. Helms, associated with the architect; Chester Morris, city and state building inspector; and Robert Bruen, Jr.

NEW PRODUCTS



New Concrete Hoist

Added to the Erie portable concrete plant is an auxiliary hoist hydraulically operated by the plant operator. It raises and lowers a concrete bucket which takes a complete batch of concrete from the plant, thus permitting the next batch to be cycled with little delay. It is conservatively estimated that with this hoist concrete output is increased at least 25 percent. Another advantage is the ability to raise each batch of concrete to any desired height. A swivel chute operating through a 180-degree arc adds flexibility to the discharge point. It will now be possible to load transit mix trucks and special body concrete trucks, and to reach high form work without difficulty.—Erie Steel Construction Co., Erie, Pa.



Balanced Portable Saw

Through better balance fatigue is reduced, claims the maker of "Balansaw". Some of the specifications are: Frame, die cast aluminum alloy; blade, 6-in. combination; capacity, 1⅝ in. of wood; speed, 3,600 rpm.; guard, automatic safety; blower, cools motor, gear case, and clears sawdust from line of cut; weight, 11 lb.; motor, universal A.C. or D.C.—110-v 60 cycles.—Cummins Business Machines Corp., 4740 No. Ravenswood Ave., Chicago 40, Ill.

Westinghouse Products

Included in recent new Westinghouse products are the following: A ASR relay which provides simpler starting of synchronous motors; an automatic 4-car system of elevators for moderate-sized buildings —known as the selective collective automatic system—operates entirely automatically under control of an automatic dispatcher; a general purpose turbine suitable for all industries regardless of weather conditions and atmospheres; and cable stretch for elevators —a new control element which relevels the car automatically. A load weighing device and control measures the load in the car and controls the release of the brake. With a very heavy load the control would hold the brake on until the elevator motor had built up sufficient torque to relevel the car without further dropping; then it would release the brake and relevel—Westinghouse Electric Corp., 306 Fourth Ave., Pittsburgh 30, Pa.

Curb Service Boxes

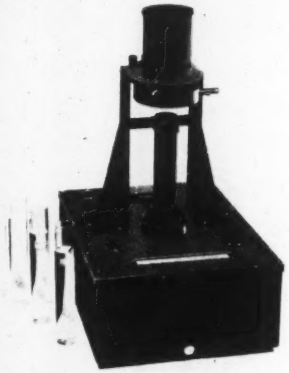
New line of valve and curb service boxes in a complete range of sizes has sleeve and bottom sections of asbestos-cement pipe and tops and covers of cast iron. By means of adjustment joint, sleeve telescopes into bottom section permitting accurate adjustment and providing a shock-proof joint to absorb service and road shocks. Marketed under trade name of "G-H shock-proof boxes."—Verako Products Co., P. O. Box 604, Waukegan, Ill.

Building Heat Control

Weather conditions actuate Weather-Chron, a building heat control device. It is wired into the regular room thermostat circuit. It differs from the usual day-night time switch in that it is installed on the outside of the building. It anticipates the building's need for heat and automatically changes the time heating starts each morning. The colder the weather the sooner the heating starts up.—Automatic Devices Co., 53 West Jackson Blvd., Chicago 4, Ill.

Window for Glass Block Openings

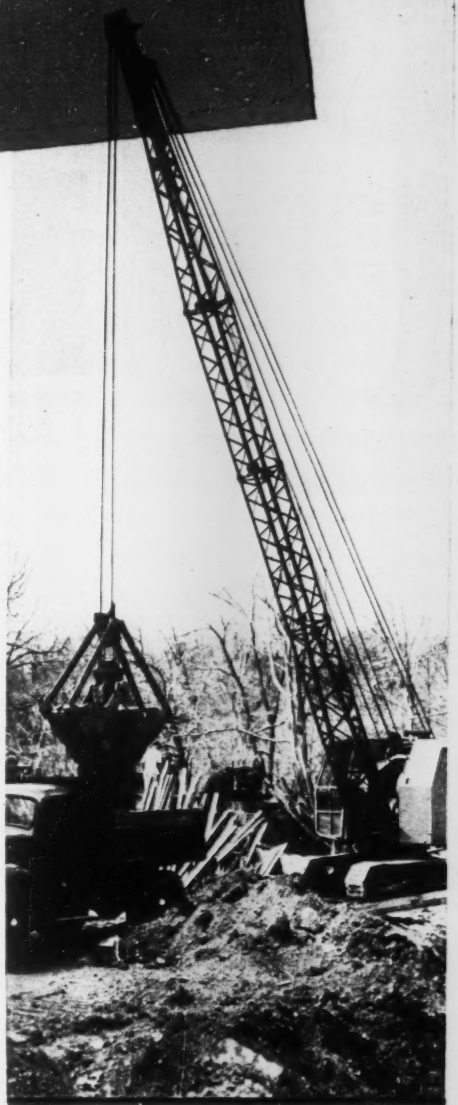
Ventilating window for glass block openings is of stainless steel tubular construction designed for ample strength to support load. Rugged latch insures positive metal-to-metal double seal at all times. Window has double weathering on heads, jambs and sills. Made in stock sizes for 8-in. glass block.—Modern Electric Laboratory, 6131 S. Wentworth Ave., Chicago 21, Ill.



Photoelectric Colorimeter

Lumetron, Model 450, is a new photoelectric instrument designed especially for water analysis and other tests requiring the accurate measurement of faint colorations and turbidities. It measures the light transmissions of liquids in Nessler tubes. The light beam passes vertically through a long liquid column, making the instrument particularly suited for the measurements of samples of pale color or faint turbidity. It permits the measurement of water color in terms of the color scale (mg. platinum per liter) and turbidity scale (parts per million) as specified by The American Public Health Association. It is also suited for colorimetric analytical tests in the sanitary examination of potable water, and in tests for municipal and industrial supply, sewage, and industrial wastes.—Photovolt Corp., 95 Madison Ave., New York 16, N. Y.

Here's help in your drive for lower costs



Preformed "Blue Center" Wire Rope lasts longer...

ROPE THAT STAYS on the job longest saves you wire rope dollars; brings fewer shut-downs; cuts down replacement time. And Roebling Preformed Lang Lay "Blue Center" Steel Wire Rope gives you exactly these money-saving features . . . One big reason for this superiority is "Blue Center" Steel specially developed for wire rope and made only by Roebling. Another big reason is the Roebling Preformed construction with its unique service advantages.

WHY PREFORMED IS ECONOMICAL

Roebling Preformed is easy to handle and install because it is relatively inert and doesn't tend to set or kink. It can be cut without seizing, and fittings are more easily applied. In operation, Preformed gives outstanding life despite severe bending, and particularly where small sheaves and reverse bends occur.

FREE ENGINEERING SERVICE

Call on your Roebling Distributor for help in selecting the *right* wire rope for longest service and rock-bottom cost. If you have specially tough problems in wire rope selection, installation or maintenance, your Distributor will be glad to secure the assistance of a Roebling Engineer. John A. Roebling's Sons Company, Trenton 2, New Jersey.

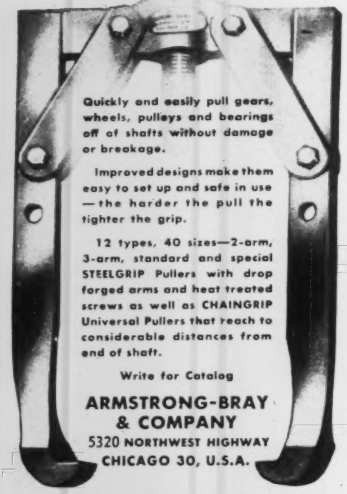
WRITE OR CALL THE ROEBLING FIELD MAN AT YOUR NEAREST ROEBLING OFFICE AND WAREHOUSE

Atlanta, 934 Avon Ave. ★ ***Boston,*** 51 Sleeper St. ★ ***Chicago,*** 5525 W. Roosevelt Rd. ★ ***Cleveland,*** 701 St. Clair Ave., N. E. ★ ***Denver,*** 1635 17th St. ★ ***Houston,*** 6216 Navigation Blvd. ★ ***Los Angeles,*** 216 S. Alameda St. ★ ***New York,*** 19 Rector St. ★ ***Philadelphia,*** 12 S. 12th St. ★ ***Pittsburgh,*** 855 W. North Ave. ★ ***Portland, Ore.,*** 1032 N. W. 14th Ave. ★ ***San Francisco,*** 1740 17th St. ★ ***Seattle,*** 900 First Ave.

ROEBLING

A CENTURY OF CONFIDENCE

ARMSTRONG-BRAY
GEAR and WHEEL PULLERS



Quickly and easily pull gears, wheels, pulleys and bearings off of shafts without damage or breakage.

Improved designs make them easy to set up and safe in use—the harder the pull the tighter the grip.

12 types, 40 sizes—2-arm, 3-arm, standard and special STEELGRIP Pullers with drop forged arms and heat treated screws as well as CHAINGRIP Universal Pullers that reach to considerable distances from end of shaft.

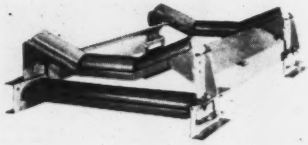
Write for Catalog

ARMSTRONG-BRAY & COMPANY
5320 NORTHWEST HIGHWAY
CHICAGO 30, U.S.A.

ATLAS CONCRETE FORMS

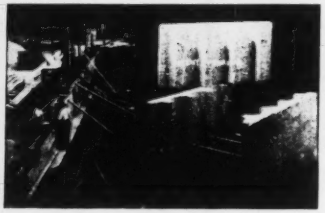
WALLS • CYLINDERS • FLOORS • SEWERS

Irvington
FORM & TANK CORP.
Irvington, N. Y.



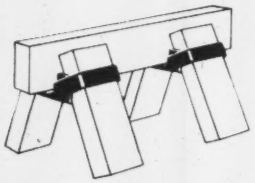
Conveyor System

The Transall idler has precision ball bearings in each roller, lubricated with a lubricant that retains its viscosity through a wide range of temperatures. Resillient mounting cushions the rolls, which are self-cleaning. Manufacturer claims large savings in installed and operating costs.—TRANSALL INC., 109 NO. 11TH ST., BIRMINGHAM 4, ALA.



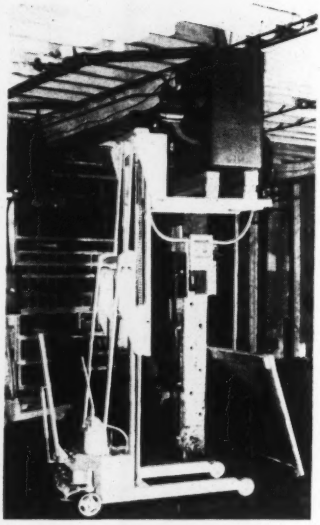
Reinforced Concrete Blocks

Klee-blocks are made of concrete reenforced with steel and have hollow centers. They weight about 22 lb. and have face dimensions of 8 in. x 16 in. They are supported against high internal pressure and rigid against external pressure. Uses include: Permanent concrete forms, foundations, finished walls, retaining walls, heat radiant floors, under drained floors, for footings and concrete pillars. When a Klee-Block wall is completed it is fireproof and has faces which can be highly finished by plastering without the application of metal lath, furring, or any other additional preparation, and can be stuccoed readily from the outside.—KLEE-BLOCK CORP., BELFAST, ME.



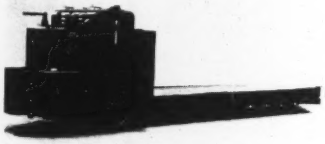
Metal Sawhorse Brackets

Sawhorse brackets enable builders to set up sawhorses on the job without nails, screws or bolts. They work well for all carpentry work, highway detour blockades, work tables, etc. Brackets are zinc-plated.—GRAND HAVEN STAMPED PRODUCTS CO., GRAND HAVEN, MICH.



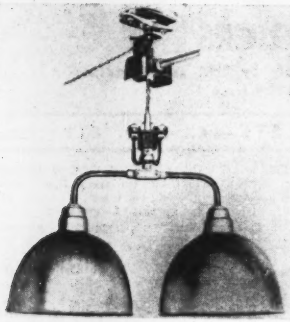
Unit Heater Installation

The use of a hydraulic high lift truck simplifies overhead installation of unit heaters and other difficult installations of heavy overhead fixtures. The platform of this truck lowers to 6 in. and raises as high as 108 in. The heavy unit can be loaded on the truck platform from the tailgate of a motor truck or, from the floor of the storage area and wheeled to a spot directly under the place where it is to be installed. The truck is then locked into place by means of a floor lock and the fixture is raised into exact position by means of a hand or power operated hydraulic pump. — LYON-RAYMOND CORP., 6925 MADISON ST., GREENE, N. Y.



Low Platform Truck

New power industrial truck has platform 12 ft. long and unusually low lift. Weight of truck is 8,000 lb., and load-carrying capacity 20,000 lb. Platform is raised by means of two hydraulic cylinders operated by hand-lever control by driver. In lowered position top of platform is 11¼ in. above floor level; maximum height elevated is 17 in. Platform is supported by four sets of wheels. Truck is powered by all-electric or gas-electric drive.—ELWELL-PARKER ELECTRIC CO., CLEVELAND, OHIO.



Lowering Light Hanger

Designed for use with twin or triple unit combinations of mercury and incandescent luminaires, as well as for similar straight incandescent units, this 3-way, 4-wire disconnecting and lowering hanger facilitates maintenance and repair and quick changes. Individual control can be used for each circuit, and a triple unit can be wired in various lighting combinations. The series 300 Thompson hanger permits the use of incandescent lighting to soften the mercury lighting and to provide instantaneous light. Electrical hazards are eliminated as lowered lighting fixture is "dead."—The Thompson Electric Co., 1101-30 Power Ave., Cleveland 14, Ohio.

For Snow Travel

To facilitate transportation of men and materials in rugged snow country, this Sno-Cat is now being used by several construction firms in the Northwest. Seven models are being manufactured, ranging in weight from 800 to 2,000 lb., and in passenger capacity from two to fifteen. Trailers capable of carrying as many as 25 passengers are also being made. This model was purchased by the Army for testing in the Arctic.—Tucker Sno-Cat Corp., Medford, Ore.

Manila Rope Splicing Tool

Rigger's fid, used like an ordinary marline spike, has detachable hollow handle that holds rope strands apart and allows incoming strands to be easily inserted.—Fellows & Stewart, Terminal Island, Wilmington, Calif.

"Gunite" ..... the sand-cement product of the "CEMENT GUN," for Concrete and Masonry Repairs, Pre-Stressed Tanks, Steel Encasement and for lining Reservoirs, Sewers and Tunnels.

CEMENT GUN COMPANY
"GUNITE" CONTRACTORS
GENERAL OFFICES—ALLENTOWN, PENNA., U.S.A.
MANUFACTURERS OF THE "CEMENT GUN"

EVERYONE INTERESTED IN EFFICIENT LOW-COST TREATMENT OF SEWAGE OR INDUSTRIAL WASTES SHOULD HAVE THESE *3 IMPORTANT BULLETINS*

1. YEOMANS "AERO-FILTER"
BULLETIN 6570

A good description of the biological trickling filter process—its principle of operation, and performance data showing remarkable records for high efficiency in BOD reduction. Complete construction information, engineering drawings and typical plans.

2. YEOMANS "SPIRAFLO" CLARIFIER
BULLETIN 6790

A full explanation of engineering principles and operating methods of this efficient unit, known for its economical operation and effectiveness in clarification, skimming, flocculation, preaeration, and grease and scum removal; contains helpful data as to specifications and installation and performance reports from typical plants. A combination of the "Spiraflo" Clarifier and "Aero-Filter" achieves trouble-free operation. Clogging is entirely eliminated.

3. YEOMANS "Package" AERIFIER Plant
BULLETIN 6652

Specially adaptable to communities up to 3500 population, industrial plants, air ports, institutions, housing projects, the "Package" Aerifier, utilizing the activated sludge principle of purification, achieves aeration and final sedimentation in a single compact concrete unit. This new bulletin contains all needful basic information, including typical plans, performance facts and useful installation data.

These useful bulletins belong in every Data File. The coupon will bring them promptly.

YEOMANS

Yeomans Brothers Company, 1445 North Dayton Street, Chicago 22, Illinois
Please send these bulletins
☐ Bulletin 6570—Yeomans "Aero-Filter" ☐ Bulletin 6790—Yeomans "Spiraflo" Clarifier
☐ Bulletin 6652—Yeomans "Package" Aerifier

NAME.....
FIRM.....
ADDRESS.....
CITY, STATE.....

MATERIALS AND LABOR PRICES

Market quotations on construction materials and wage rates reported monthly by ENR correspondents
April Materials and Labor Prices will appear in the April 7, 1949 issue

CEMENT, AGGREGATE, READY-MIXED CONCRETE—F. O. B. CITY

	PORTLAND CEMENT* Per bbl. C/L lots incl. $1.00 per bbl. for bags, cash. dis. not deducted			SAND AND GRAVEL — Per ton, carload lots			CRUSHED STONE Per ton, carload lots		CRUSHED SLAG Per ton, carload lots, f.o.b. plant		CONCRETE BLOCK 8x8x16-in.; truckload del.; per block	READY MIXED CONCRETE 1:2:4, over.
	Cloth	Paper	Bulk	Gravel, 1½ in.	Gravel, ¾ in.	Sand	1½ in.	¾ in.	1½ in.	¾ in.	Sand grav.	Lt.wgt.Agg. 50 c.y.,del.
Atlanta	$4.11	$3.36	$3.05	$2.00	$2.00	$1.75	$2.10	$2.10	$1.65	$1.85	$0.1725	$0.1725 $11.00
Baltimore	4.12	3.37	3.06	2.30*ff*	2.30*ff*	1.95*ff*	2.60*ff*	2.70*ff*	2.45*ff*	2.45*ff*	.16	.16*w* 9.85
Birmingham	3.80	3.05	....	2.06	2.06	1.66	2.50	2.50	1.00	1.20	.165	.165 7.75
Boston	4.50	3.75	3.44	2.50*t*	2.50*t*	2.50*t*	1.60*t*	1.70*t*	....	....	.17	.185*w* 10.50*m*
Chicago	3.61/3.67	2.86/2.92	2.56/2.62	2.75‡*d*	2.75‡*d*	3.20‡*d*	2.75‡*d*	2.75‡*d*	2.00‡	2.00‡	.20	.20*x* ....
Cincinnati	4.14	3.39	3.08	1.85‡*pp*	1.85‡*pp*	1.75‡*pp*	2.95‡*bb*	2.95‡*bb*	2.30	2.30	.19	.195 10.60*kk*
Cleveland	3.92	3.17	2.82	1.90*llq*	1.65*llq*	1.55*ll*	3.55‡*h*	3.55‡*h*	2.75	2.75	....	.21 11.80*oo*
Dallas	3.57	2.82	2.52	2.00	2.15	1.75	2.10	2.15	....	....	.089*p*	.250 9.30
Denver	....	3.59	3.29	1.85	2.00	1.15	....	....	....	....	.20	.23*w* 9.65
Detroit	4.03	3.25	2.97	3.25‡	3.25‡	3.00‡	3.00‡	3.00‡	3.00‡	3.00‡	.17	.18*w* 9.60*kk*
Kansas City	....	....	....	2.05	2.05	1.50/1.80‡	1.45*q*	1.45*q*	....	....	.17*wf*	.215*ay* 10.65*n*
Los Angeles	....	3.82*b*	3.42*b*	1.92‡	2.02‡	1.72‡*nn*	1.92‡	1.92‡	....	....	.085*oo*	.... 10.28*m*
Minneapolis	4.09*dd*	3.34*dd*	3.03*dd*	2.30‡*z*	2.30‡*z*	1.35‡*z*	2.50‡*z*	2.50‡*z*	....	....	.21*ccc*	.... 10.70*jkk*
Montreal	....	2.39*qq*	2.24*qq*	1.25*bbs*	1.75*bbs*	....	1.35*cs*	1.60*cs*	....	....	.2470*rr*	.1770*nrr* 8.95*ls*
New Orleans	....	3.07	2.75	2.32	2.32	1.82	....	....	1.05	1.25	.23	.... 10.65
New York	....	4.10/4.30‡	....	2.00*de*	2.00*de*	1.45*de*	2.25*ds*	2.25*ds*	....	....	.18*ii*	.18*wccii* 10.30*k*
Philadelphia	4.20‡	3.45‡	3.14‡	2.30‡	2.40‡	2.05‡	1.90‡	1.95‡	1.50	1.50	.18/.22	.... 9.85
Pittsburgh	4.15†	3.38†	3.10†	2.05‡	2.05‡	3.00‡	2.50‡	2.50‡	2.05	2.05	.23*s*	.23*s* 11.50
St. Louis	3.80*o*	3.05*o*	2.75*o*	2.60‡*oh*	2.40‡*oh*	2.00/2.40‡*oh*	1.50*c*	1.50*c*	1.70	1.15	.225	.24*yo* 10.40
San Francisco	....	3.38	2.98	1.84	1.84	1.94	....	....	....	....	....	.25*y* 10.75*u*
Seattle	....	3.45*mm*	2.95*mm*	2.75‡*od*	2.75‡*od*	2.75‡*od*	3.50‡*od*	3.50‡*od*	....	....	.22*ss*	.3135 9.75*o*

‡ Delivered. *a* F.o.b. truck at plant. *b* 10c. per bbl. off for payment by 10th of following month. *c* F.o.b. quarry. *d* Per cu. yd. *e* Barge lots alongside docks, Man. *f* F.o.b. truck on job. *g* Pea gravel. *h* Truck Lots. *i* ¾ in. *j* 5% discount for cash. *k* 5 cu. yds. or over, del. Man. *l* 2000 lb. concrete. *m* 50c. off for cash. *n* 25 c.y. or more. *o* 2% off for cash. *p* 5¼ x 8 x 12 in. *q* F.o.b. truck at plant. *r* 10c per bbl. off cash 20 days. *s* Sales tax included. *t* Truck delivery. *u* 10 to 100 c.y. brackets. *v* F.o.b. scow, Hudson River, N. Y. *w* Cinder. *x* Waylite. *y* Haydite. *z* Celocrete. *aa* Aver. haul, 7-9 mi. zone. *bb* Under 5 tons. *cc* 8 x 8 x 18 in., also. *dd* Dealers sell only in LCL. This is price for CL and does not include dealer's commission. *ee* 20c refund for each returnable bar. *ff* LCL. *gg* 10c. refund for each returnable bag. *hh* Truck loads up to 500 c.y. Over 500 c.y. lots, 50c less per yd. *ii* Yard price. *kk* 2500 lb. compression strength. *ll* 30c refund for each returnable bag. *mm* Price at plant, called for. *nn* 10¢ per bbl. off cash 10 days. *oo* Concrete sand. *pp* 4 x 8 x 12 std. wgt. *qq* 5 tons or more. *rr* Dealer's commission not included. *ss* F.o.b.

* Prices include dealer's commission except where indicated to the contrary.
† Prices not stable. 1% off for cash.

CASH DISCOUNTS CEMENT to Contractors: truck delivery, 2% for cash on 10th of month; on carload deliveries, no trucking, same as dealer cash discount 10c. per bbl. for payment within 15 days of date of invoice. Subject discount 10c. per bbl. 20 days in Montreal.

CURRENT MAXIMUM PRICES AT CEMENT MILLS

Charge for bags not included. For cloth bags, add $1.05 per bbl.; 25¢ refund allowed for each returnable bag; for paper bags add 30¢ per bbl., not refundable.

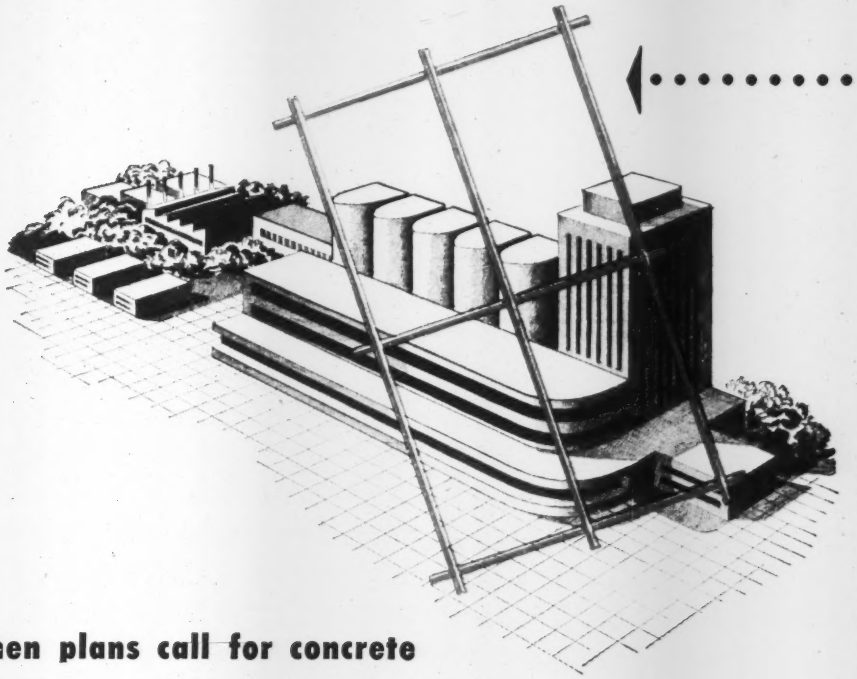
	Bulk		Bulk		Bulk		Bulk
Richard City, Tenn.	$2.40†	Bellington, Ind	$2.20	Steelton, Minn	$2.40	Muskegon, Mich.	$2.40†
Clinchfield, Ga	2.40†	Independence, Kan	2.30	Leeds, Ala.	2.25	Saginaw, Mich.	2.35†
Kingsport, Tenn	2.40†	Hannibal, Mo	2.35	Duluth, Minn.	2.40	Wyandotte, Mich.	2.30†
West Des Moines, Iowa	2.30†	Northampton, Pa	2.30	Hudson, N. Y.	2.30	Buffalo, N. Y.	2.40†
Nazareth, Pa	2.30†	Universal, Pa.	2.30	Alpena, Mich.	2.25†	Oswego, N. Y.	2.40†
Bath, Pa	2.30†	Waco, Tex. + 9¢ tax	2.20	Detroit, Mich	2.40†	Cleveland, O.	2.40†
						Toledo, O.	$2.40†
						Milwaukee, Wis	2.40†
						Green Bay, Wis	2.40†
						Ironton, O.	2.30
						Montreal City	2.08

† *Prices to hold for first quarter of 1949.*

PAVING BRICK, BLOCK, ASPHALT, ROAD OILS—F. O. B. CITY

	PAVING BRICK AND BLOCK Granite per M lots of 50,000 4x4x8 in.	Brick per M 3x4x8¾ in. carload lots	Wood per sq. yd. 3½ in. 16-lb. treat	PAVING ASPHALT Per ton, less than 80 penetration Tank car	Drums	ASPHALT BINDERS—FLUXES Per gal., 80-300 penetration Tank car	Drums	CUTBACK ASPHALT Per ton Tank car	Drums	ROAD OIL‡ Per gal. Tank car	ASPHALT EMULSION (Quick-breaking) Per gal. Tank car	Drums
Atlanta	$73.00	$35.00	$2.25	....	....	....	....	....	....	....	....	....
Baltimore	150.00‡	52.70‡	.....	$23.00	.....	$.095	$0.15	$.095*h*	$.17*h*	$.095*hh*	$.095	$0.115
Birmingham	.....	32.50	.....	....	....	....	....	....	....	....	....	....
Boston	.....	.....	.....	24.50*o*	$35.50*o*	.1036*o*	.185*o*	.115*ho*	.205*ho*	.10*o*	.113*o*	.205*o*
Chicago	150.00‡*y*	85.00/88.00*e*‡	3.10/4.15*d*‡	22.50*b*	32.00*b*	21.50*bg*	31.00*bg*	.097/.106*h*	.....	.082/.0845*b*	.1025/.1075*b*	.15/.1675*b*
Cincinnati	.....	.....	.....	24.50*ff*	.....	.1035	.....	.1035*h*	.....	.....	.....	.....
Cleveland	180.00	49.00*t*	3.70*u*	30.00	40.00	29.50*j*	39.50*j*	.135*h*	.22*h*	.14	.135	.27
Dallas	*l*	40.00	*l*	23.38	42.17	.0987	.1837	26.15	46.65	.0962	.1037	....
Denver	.....	43.00	.....	....	....	....	....	....	....	....	....	....
Detroit	.....	....	.....	28.45	35.45	....	....	.1188*h*	.....	....	....	.1975
Kansas City	.....	40.00*g*	.....	20.45*rgg*	....	....	....	.081*hr*	.....	.071*r*	....	....
Los Angeles	*l*	.....	*l*	17.60*mf*	33.10*mfw*	17.60*gm*	33.10*mw*	19.10*m*	26.10*mw*	17.60*gm*	.0825*cc*	.1625*cc*
Minneapolis	.....	.....	2.79*d*	27.00	37.00	23.00*g*	34.00*g*	27.00	37.00	105	.13	.23
Montreal	137.00	.....	.....	25.00*k*	34.65*k*	15.80*kp*	20.05*kp*	15.70*kp*	17.70*kp*	14.20*kj*	.174*k*	.215*k*
New Orleans	.....	.....	.....	20.00*a*	.....*s*	20.00*ga*	.....*s*	.095*hadd*	.....*s*	.095	.0975	.16*n*
New York	.....	.....	2.50*d*	29.00	42.69*	28.00*g*	41.89*g**	.1190*h*	.1826*h**	.1140	.1190	.1817*
Philadelphia	150.00	80.00/90.00	4.06	23.00	.....	22.00*g*	.....	.095*h*	.....	.....	.....	.....
Pittsburgh	165.00	42.00	4.50	26.00	39.00	.12	.24	27.00	40.00	.095	.10	.21
St. Louis	.....	.....	.....	21.65	.....	.....	.....	.....	.....	.....	.1081	.1075
San Francisco	.....	57.75*c*	.....	18.10*ea*	32.60*eee*	18.10*geeff*	.....	20.10*ee*	.....	.....	.0825	.1625
Seattle	.....	.....	.....	18.10*i*	38.60*i*	17.60*ig*	.....	20.10*i*	24.10*aai*	18.60*ig*	.0775*i*	.0925*i*

‡ Delivered. *a* F.o.b. Baton Rouge. *b* F.o.b. refinery. *c* 2½ x 8½ x 4 in. *d* 2-in. interior block, 6-lb. treatment. *e* 3½ x 4 x 8½. *f* 40-80 penetration. *g* Per ton. *h* Per gallon. *i* F.o.b. Martinez. *j* Shipped in drums, per drum. *k* Tax included. *l* Not used. *m* F.o.b. refinery, El Segundo. *n* 55 gal. drums. *o* Price at plant, in Everett. *p* Per 100 gal. *q* F.o.b. Buffalo. *r* F.o.b. Sugar Creek, Mo. *s* Drums not available. *t* Truck deliveries in Greater Cleveland. *u* 3-in. *v* Bulk, refinery. *w* Shipped in steel barrels, no longer in double head wood barrels. *x* Truck deliveries in Detroit $75.00. *y* Carload lots. *aa* In customer's drums. *cc* F.o.b. refinery, Inglewood. *dd* Medium curing. Rapid curing, $.0975; slow curing, $.0925. *ee* F.o.b, Richmond. *ff* 50-300 penetration. *gg* Less than 100 penetration. *hh* Asphalt. * Use of reconditioned drums.



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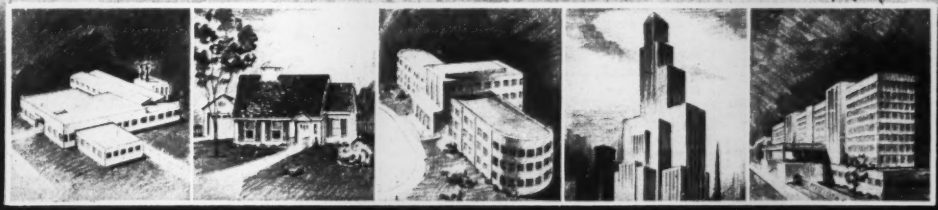


FACTORIES SMALL HOMES SCHOOLS SKYSCRAPERS HOSPITALS

IRON AND STEEL PRODUCTS—PER 100 LBS. BASE MILL PRICES

	STRUCT. SHAPES PLATE	REINF. BARS[a,b] billet	RIVETS ½-in. structural	SHEET PILING Base	STEEL RAILS Per Net Ton Standards[c]	Light[d,f]	Re-rolled	TRACK SUPPLIES Angle Bars	Std Spikes	Tie Plates[g]	Track Bolts[d]
Birmingham Area	$3.25	$3.35	$6.75		$64.00	$71.00	Not	$4.25	$5.35	$4.05	....
Chicago Area	3.25	3.35	6.75	$4.05	64.00	71.00	avail-	4.25	5.35	4.05	....
Pittsburgh Area	3.25	3.35	6.75	4.05	64.00	71.00	able	4.25	5.25	4.05	....
Buffalo Area	3.30	3.35	6.75	4.05	64.00	71.00	....	4.25	5.35	4.05	$8.50
Cleveland	....	....	6.75	....	....	....	....	....	....	....	8.50
Youngstown Area	....	3.35	....	....	....	....	....	....	5.35	....	....
Geneva	3.25	....	....	....	....	....	....	....	....	....	....
Los Angeles	....	4.10	....	....	....	....	....	....	5.35	....	....
Pueblo	3.25	3.35	....	....	64.00	71.00	....	4.25	5.35	4.05	8.50

a Fabricated: To consumers: $4.25; except $5.00 Seattle, Wash. *b* Rail steel price $4.05, Williamsport, Pa. *c* Rail steel $102 per ton Williamsport, Pa. *d* Treated. Untreated $8.25. *e* Except $70.00 Indiana Harbor, Ind. and Minnequa, Colo. *f* Except $85.00 Minnequa, Colo. burg, Calif.; $4.50 Seattle, Wash. *g* Except $4.20 Pitts-

IRON AND STEEL PRODUCTS—F. O. B. WAREHOUSE, PER 100 LBS., BASE PRICE

	STRUCTURAL SHAPES Per 100 lb base price	REINFORCING BARS[g] Per 100 lb., base price[a] 5 tons to carload lot[b] New billet	Rail steel	Add $/cwt for switch	EXPANDED METAL LATH[k] Per 100 sq. yd., carload lots Del.	Std. diamond mesh, 3.4 lb.	Std. ribbed 3.4 lb.	WELDED FABRIC REINFORCING[d] Per 100 sq. ft., carload lots 4x16 in., No. 5 & 10 wires	4x12 in., No. 8 & 12 wires	6x6 in., No. 6 & 6 wires
Atlanta	$4.75	$5.225[k]	$5.225[k]	$.025	$.10	$31.50	$31.50			
Baltimore	5.51	4.47[l]	....	....	.10	40.00	43.00			
Birmingham	5.15	5.15	5.50	.05	.15	43.00[p]	45.50[p]			
Boston	5.57[l]	5.46[k]	5.34[kc]	....	.10/.15	31.00	33.00			
Chicago	5.05	4.70[ff]	4.70[ff]	.05	....	31.00‡	33.00‡			
Cincinnati	5.63[jr]	5.58[r]	....	....	....	33.00[zee]	35.00[zee]			
Cleveland	5.62[hh]	4.37[r]	....	....	.10	34.50	36.50			
Dallas	6.30	6.25	6.25	....	....	33.75	35.75			
Denver	6.30	6.15[r]	....	....	....	43.00[s]	50.00[gs]			
Detroit	5.35	....	....	....	.10	33.00[x]	44.00[q]			
Kansas City	6.00	5.10[d]	5.10	....	....	37.50	39.50			
Los Angeles	5.75[jf]	6.15[kb]	....	....	.15	37.00[jf]	41.00[kk]			
Minneapolis	5.20[c]	5.20[ll]	5.20[ll]	....	.15	34.50	36.50			
Montreal	5.25[i]	5.15[s]	5.15[s]	....	....	44.10[h]	46.80[h]			
New Orleans	....	5.00[ab]	....	.05	.10	32.00	32.00			
New York	5.71[r]	6.00	6.25	....	.15/.20	34.50[st]	36.50[st]			
Philadelphia	5.04	5.15	....	....	....	30.00‡	32.00‡			
Pittsburgh	4.40/4.50	4.40/4.50	4.40/4.50	.05	.10	32.50	34.50			
St. Louis	5.42[e]	5.28[e]	5.28[e]	....	....	42.00[aa]	48.00[aa]			
San Francisco	5.90[n]	5.65	....	....	....	36.50	38.50			
Seattle	4.30[e]	5.25[el]	....	....	....	52.00[smm]	42.00[smm]			

‡ Delivered. *a* Mill prices. *b* 1-5 tons, add 35c. Less than 1 ton, add 50c. *c* 20 tons or over base. *d* Mill price plus freight. *e* F.o.b. plant. *f* Includes delivery in free delivery zone. *g* High scrap steel prices cut former 15c. differences between new billet and rail steel. *h* List price. Dominion tax exempt. Provincial and Municipal tax extra. *i* Plus Dominion, Provincial and Municipal sales tax. *j* Price per ton. *k* F.o.b. city. *l* Intermediate and hard grade, new billet. *m* Per sq. yd. *n* 5 to 15 tons base. *p* Del. of 5000 sq. yd. or less. *q* Std. ribbed, 4 lb. per sq. yd. *r* 5 tons or over. *s* LCL. *t* Asphalt coated. *u* Note: Revised size extra 1 in., 1¼ in., 1½ in. 10c, ¾ in., ⅞ in. 15c, ⅝ in. 20c, ½ in. 35c, ⅜ in. 55c, ¼ in. $1.30. *v* Under 20 tons. Straight. *w* Copper bearing. *x* 2.5 lb. per sq. yd. *y* $.0063 transportation tax included. *z* Copper alloy. *aa* Delivered truck to job. Contractor to do unloading. *bb* Includes 55c extra for ¾ in. size. *cc* Up to 14,999 lbs. *dd* F.o.b. dock. *ee* F.o.b. cars. *ff* Carload lots. *gg* Including sales tax. *hh* Delivered price is $5.62. *ii* Rolled at Geneva mill. Shapes rolled at Fontana, $6.90. *kk* ¼" ribbed. *ll* 5 to 8 tons. *mm* 2% off for cash.

PLUMBING, HEATING, WATER, SEWER AND DRAIN PIPE

	C. I. PIPE Per net ton f.o.b. 6 in. to 24 in. *a*	VITRIFIED SEWER PIPE Per foot, Delivered ASTM C13-44T std. 8 in. *s,e*	12 in. *e*	24 in.	36 in.	CLAY DRAIN TILE ASTM C4-24 Per 1,000 ft., carload lots, f.o.b. 6 in.	8 in.	CONCRETE SEWER PIPE Per ft., delivered: ASTMC 14-41 12 in.	24 in.	*WROUGHT STEEL PIPE (Full standard weight)				
Atlanta	$100.50	$0.43	$0.67	$3.39	$7.00	$114.00	$140.00	$0.45	$2.00					
Baltimore	104.86	.495	.975	4.21	9.34	178.20	228.00	.80	2.25	3½ to 6 in.	Lap Weld†		24.5	24.5a
Birmingham	93.50	.40	.72	2.84	....	210.00‡	375.00‡	.90	2.50		Black	Galv.	42.5	22.5	46.5a	24.5a
Boston	108.46	.441*uzz*	.8505*uzz*	3.87*uzy*	10.36*uzy*	173.40	267.60	1.45‡*mq*	3.60‡*mq*				44.5	20.5	42.5a	20.5a
Chicago	107.49	.59	1.14	4.81	13.45	150.00‡	270.00‡	.70	2.35						12.5ab	+9.5ab
Cincinnati	105.90	.441	.8505	3.51	9.53	220.00‡	340.00‡	.60	2.25							*b* Continuous
Cleveland	108.13	.357*r*	.6885*r*	3.015*r*	8.405*r*	147.50	231.00	.65	2.50	2½ & 3 in.	Butt Weld†		32.0	29.0	27.0	
Dallas	110.28	.375	.684	2.72	6.25	.....	.....	.48	1.55		Black	Galv.	28.0	29.0	28.0	
Denver	115.36	.41*dd*	.71*dd*	2.98*dd*	....	.....	.....	.74*dd*	2.50*dd*				28.0	29.0	+2.00	
Detroit	103.13	.553	1.10	4.20	12.75	195.00‡*m*	303.00‡*m*	.65	2.50							*a* 3½ to 4 in.
Kansas City	109.41	.418*m*	.76*m*	3.00*m*	....	121.00*m*	418.00*m*	.60*l*	2.00*l*				50.5	50.5	48.0	
Los Angeles	122.06	.426	.927	4.532	11.298	193.00‡	324.00‡	.72	....				49.5	50.5	49.5	
Minneapolis	111.67	62*mo*	1.12*mo*	4.35*mo*	....	.....	.....	1.29*h*	3.67*h*				48.5	49.5	48.5	
Montreal	100.00	.77*s*	1.35*s*	4.47*s*	8.50*es*	.60*p*	.48*p*	75.00*jkaa*	240.00*jkhaa*					49.5	49.5	
New Orleans	103.68	.412	.762	3.955	9.15	231.00*bb*	405.00*bb*	.55	1.95					50.5b	49.0	
New York	103.80/108.50	.62	1.14	4.45	12.30	.....	.....	1.00	2.50					19.5b	+2.00	
Philadelphia	101.47	.54	.99	4.08	10.28	235.00‡	300.00‡	1.25*h*	3.20*h*							
Pittsburgh	108.76	364*m*	702*m*	2.70*m*	6.625*m*	134.20	197.40	1.05*h*	2.50*g*							
St. Louis	105.27	.48	.87	3.42	8.05	.....	.....	1.10*il*	2.25*hl*							
San Francisco	122.06	.50*d*	.99*d*	4.32	10.80	188.00*dl*	313.00*dl*	.69	2.85							
Seattle	123.95	.515	.915	....	....	150.00*e*	.....	.80*ee*	2.40							

Mill: Lorain, Ohio; Aliquippa, Pa.; Sparrows Pt., Md.; Benwood, W. Va.; Youngstown, O.; Indiana Harbor, Ind.; Sharon, Pa.; Wheatland, Pa.; Etna, Pa.; Fontana, Calif.

‡ Delivered. † F.o.b. *a* B. & S. class B and heavier, CL. Burlington, N. J. (base) $98.50. Based on existing freight rates; subject to rate change. Gas pipe and class A, $5 per ton additional. 4 in., $5 per ton additional. 30 in. and larger, usually $8 per ton less. *b* Extra strength ASTM C 200-44T. *c* 4-in., $90. *d* SS361-A. *e* 30 in. *g* Culvert pipe. Reinforced, ASTM C76-41. *h* Reinforced, ASTM C75-41. *i* Reinforced, ASTM C76-37. *j* Centrispun. *k* Per 100 ft. *l* F.o.b. plant. *m* Truck delivery. *o* Listed price is based on LCL (no minimum). *p* Less than 5 ton loads, price per ft. *r* Within switching limits. *s* ASTM C13-40. *e* F.o.b. city. *z* 2 ft. lengths. *g* 3 ft. lengths. *z* CESA A 60-1941 specifications used. *aa* No standard specifications in Can. *bb* Freight allowed to destination in city. *cc* Truck loads; f.o.b. plant, Newton. *dd* LCL, delivered, f.o.b. truck. *ee* 1% off for cash.

* WROUGHT STEEL PIPE: Discounts from standard list consumers carload prices. Base price approx. $200 per net ton. List prices per ft.: *Butt Weld:* ⅛ in., 5¢; ¼ in., 6¢; ⅜ in., 6¢; ½ in., 8½¢; ¾ in., 11½¢; 1 in., 17¢; 1¼ in., 23¢; 1½ in., 27½¢; 2 in., 37¢; 2½ in., 58½¢; 3 in., 76½¢. *Lap weld:* 3½ in., 92¢; 4 in., $1.09; 5 in., $1.48; 6 in., $1.92. Freight rates to destination to be added to price, plus 3 percent tax on transportation.

WROUGHT IRON PIPE: List prices per ft. same as wrought steel pipe. Discount for Pittsburgh base. *Butt weld* — 1 in. and 1¼ in. black, +4.5, galv. +32.5; 1½ in. black, 1.5, galv. +29.0; 2 in. black 2, galv. +28.5. *Lap weld* — 2½ in. to 3½ in. black +.5, galv. +32.0; 44 in. to 8 in. black +2, galv. +27.5. Freight rates to destination to be added to name delivered price.

LUMBER, TIMBER, PLYWOOD—PER M FT., B.M., CARLOAD LOTS F. O. B.

	SHORT LEAF YELLOW PINE AND DOUGLAS FIR — All S. L. Y. P. is No. 2 common or better and for No. 1 N. C. Box. (Prices in Bold Face) — All Fir planks No. 2 common, Fir timber is No. 1 common. Lengths up to 20 ft. (Prices in italics)								LONG LEAF Y. P. Merchantable grade up to 20 ft.		PLYWOOD Rail freight increment* (See note for base price)	
	1x6 s4s	1x8 s4s	2x4 s4s	2x6 s4s	2x8 s4s	2x10 s4s	3x12 Rgh	6x12 Rgh	2x12 Rgh	12x12 Rgh	5/16"	3/4"
Atlanta	*l* **$70.00**	**$71.00**	**$60.00**	**$62.00**	**$65.00**	**$68.00**	**$70.00**	.....	.....	.....	.....	.....	**$22.32**	**$27.24**
Baltimore	**90.00**	**95.00**	**92.00**	**95.00**	**95.00**	**98.00**	**115.00**	.....	.....	.....	175.00	175.00	22.86	27.90
	120.00	*120.00*	*115.00*	*115.00*	*115.00*	*115.00*	*125.00*	*125.00*	*125.00*	.....	.....	.....	.....	.....
Birmingham	*l* **83.00**	**87.50**	**73.00**	**75.00**	**78.00**	**82.50**	**95.00**	.....	.....	.....	130.00	125.00	21.78	26.58
	l *80.00*	*80.00*	*77.00*	*77.00*	*77.00*	*77.00*	*98.00*	*98.00*	*98.00*	.....	.....	.....	.....	.....
Boston	78.00[a]	78.83[a]	83.00[a]	83.00[a]	83.00[a]	88.00[a]	.....	.....	.....	.....	105.00	105.00	22.86	27.90
	90.00	*90.00*	*92.00*	*80.00*	*80.00*	*100.00*	*100.00*	*100.00*	*100.00*	.....	.....	.....	.....	.....
Chicago	‡ **85.00**	**90.00**	**80.00**	**82.00**	**84.00**	**90.00**	**94.00**	.....	.....	.....	117.00	117.00	18.72	22.80
	‡ *85.00*	*88.00*	*86.00*	*87.00*	*88.00*	*88.00*	*89.00*	*93.00*	*93.00*	.....	.....	.....	.....	.....
Cincinnati	**95.00**	**108.00**	**90.00**	**90.00**	**100.00**	**110.00**	**110.00**	.....	.....	.....	150.00	150.00	21.78	26.58
	125.00	*125.00*	*90.00*	*100.00*	*120.00*	*120.00*	*120.00*	*120/130*	*130/135*	.....	.....	.....	.....	.....
Cleveland	**78.80**	**78.80**	**70.72**	**80.82**	**81.83**	**84.00**	**93.00**	.....	.....	.....			22.20	27.12
Dallas	*l* **71.00**	**71.00**	**61.00**	**59.00**	**61.00**	**66.00**	**80.00**	.....	.....	.....	72.00	80.00	18.72	22.80
Denver	*92.00*	*92.00*	*97.00*	*95.00*	*95.00*	*95.00*	*101.00*	*117.00*	*118.00*	.....	.....	.....	13.92	16.98
Detroit	**78.50**	**84.00**	**72.00**	**80.00**	**80.00**	**84.00**	.....	.....	.....	.....	.....	.....	21.78	26.58
	82.50	*84.00*	*88.00*	*86.00*	*86.00*	*86.00*	.....	.....	.....	.....	.....	.....	.....	.....
Kansas City	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	16.56	20.16
	b *82.50*	*82.50*	*89.75*	*90.25*	*90.25*	*90.25*	*99.00*	.....	.....	.....	.....	.....	.....	.....
Los Angeles	*a* *76.00*	*76.00*	*76.00*	*76.00*	*76.00*	*76.00*	*91.00*	*101.00*	*91.00*	.....	.....	.....	13.38*gh*	16.26*gh*
Minneapolis	‡*b* *105.00*	*105.00*	*105.00*	*105.00*	*105.00*	*105.00*	.....	.....	.....	.....	.....	.....	16.56	20.16
Montreal	*e*[b] 73.00	76.00	73.00	75.00	76.00	85.00	.....	.....	.....	.....	.....	.....	.....	.....
	155.00	*155.00*	*155.00*	*155.00*	*155.00*	*155.00*	.....	*135.00*	.....	.....	.....	.....	.....	.....
New Orleans	*l* **66.00**	**70.00**	**70.00**	**75.00**	**75.00**	**70.00**	*85.00*	.....	.....	.....	100.00	105.00	18.72	22.80
	l *68.70*	*68.70*	*71.00*	*75.00*	*72.50*	*72.50*	*67.00*	*67.00*	*67.00*	.....	.....	.....	.....	.....
New York	‡ **87.50/90**	**92.95**	**Range from $75.00 to $87.50**				**95/100**	.....	.....	.....	175/200[f]	175/200[f]	22.86	27.90
	‡	.....	*Range from $95.00 to $100.00*				.....	*110/120*	*110/120*	.....	.....	.....	.....	.....
Philadelphia			**Range from $90.00 to $100.00**					.....	.....	.....	166.00	166.00	22.86	27.90
			Range from $105.00 to $116.00				.....	*122.00*	*122.00*	.....	.....	.....	.....	.....
Pittsburgh	*l* **85.90**	**75.90**	**80.85**	**80.85**	**85.90**	**80/90**	**110.00**	.....	.....	.....	.....	.....	22.56	27.48
	i *100/120*	*100/120*	*100/110*	*100/110*	*100/110*	*100/120*	*120/130*	*140.00*	*160.00*	.....	.....	.....	.....	.....
St. Louis	‡*j* **90.00**	**93.50**	**82.50***m*	**87.50***m*	**94.50***n*	**102.00***n*	**95.00**	.....	.....	.....	103.00	*130.00*	18.72	22.80
	‡*k*	.....	*110.00n*	*110.00n*	*110.00n*	*110.00n*	*119.00*	*130.00*	*131.50*	.....	.....	.....	.....	.....
San Francisco	*d* *68.00*	*68.00*	*68.00*	*66.00*	*66.00*	*65.00*	*65.00*	*65.00*	*65.00*	.....	.....	.....	10.08*g*	12.30*g*
Seattle	*l* *62.50i*	*62.50i*	*62.50i*	*62.50i*	*62.50i*	*62.50i*	*62.50i*	*62.50i*	*62.50i*	.....	.....	.....	‡	‡

Bold Face type, Southern Pine. *Italics, Douglas Fir.* ‡ Spruce. [a] Western Pine No. 3 Common. [b] Delivered. *a* Yard prices. *b* Retail prices, less than C.L. *c* 5 M ft. or less. *d* Direct mill prices; f.o.b. purchasers carrier or truck. *e* Tax exempt. *g* Lower rate by water shipment. *h* 50,000 lb. minimum. *i* No. 1 common. *j* Delivered in 5000 ft. lots. *k* These are retail yard prices quoted per truck load in Greater Cleveland. Less 2% for cash. Truck lots. *l* F.o.b. mill. *m* 8 to 12 ft. lengths. *n* 8 to 16 ft. lengths.

Note: Special concrete form grade Fir Plywood, 4' by 8' panels, 5-ply, sanded 2 sides, water resistant glue, carload lots, delivered per 1,000 sq. ft. surface. Seattle base price on 1/2", $160.00; on 3/4", $190.00. For other centers add rail freight increment from table on proper size. Oiling and edge sealing charges included.

† 18 ft. and under. *Freight rate increase of 4c per cwt., effective Jan. 11, not included in these figures.

GLASS, EXPLOSIVES, CHEMICALS

	WINDOW GLASS — Discounts from jobbers list, Jan. 16, 1946*a* — Single or Double Thickness A quality	B quality	EXPLOSIVES — Per lb. 40% Ammonia Gelatin in 50 lb. cases delivered in 200 lb. lots*	
Atlanta	76%	76%	$0.2025	Price of 60% Ammonia Gelatin is $0.0125 per lb. higher than 40%
Baltimore	70–10%	71–10%	.2025	
Birmingham	68%	68%	.1575	
Boston	.....	60%*i*	.2025	
Chicago	64%	64%	.2025	
Cincinnati	62–10%*e*	62–10%*e*	.2025	
Cleveland	62–10–10–10%	62–10–10–10%	.2425	
Dallas	65%	65%	.215	
Denver	66%	66%	.2075	
Detroit	62–10–10%	62–10–10%	.2025	
Kansas City	65%*e*	65%*e*	.2075	
Los Angeles	58%	63%*f*	.21	
Minneapolis	64%	64%	.2075	
Montreal	40–5%*bc*	40–10–5%*bc*	18.90*h*	
New Orleans	68%	68%	.2125	
New York	71%	72%	.32*g*	
Philadelphia	66%	67%	.2025	
Pittsburgh	70%	70%	.175	
St. Louis	70–10%	70–10%	.2075	
San Francisco	66%	73%	.2075	
Seattle	54%	55%	.21	

Glass, a Jobbers' list price per box, 14 x 20, ss, $20.75 for A quality, $18.00 for B quality; 14 x 20, ds, $30.75 for A quality, $26.00 for B quality. *b* Discount from list, Sept. 1939; sales tax included, but 6% tax exemption not allowable for. *c* Single thickness. *e* Discount from list of Aug. 15, 1938. *f* ss; ds—62%. *i* Double thickness 65%.

Explosives. * Urban prices influenced by service charges or local storage and delivery regulations do not consistently reflect quantity prices in less congested areas. *g* In borough of Kings, Queens, and Richmond and in Manhattan south of Canal St., add delivery charge of $9.00 per trip. *h* F.o.b. city, per 100 lb. forcite, 40%. Forcite 60%, $20.65.

40% Ammonia Gelatin price ranges in other than urban areas, per lb. (except Seismograph Grades)

	C. L. 20,000 lb. net	Tons	200 lb. lots
E. of the Miss., except Fla. and Me.	$0.155	$0.1825	$0.2025
W. of Miss. to Rocky Mtn. States, Fla. and Maine	.16 – .1675	.1875– .20	.2075– .22
Rocky Mtn. States	.16 – .1725	.1875– .20	.2075– .225
Pacific N. W. States	.1575– .17	.19 – .2025	.21 – .2225
Pacific S. W. States	.155 – .1625	.1875– .195	.2075– .2175

PILES, TIES F. O. B.

PILES

Prices per linear foot, fir and pine, bark on, f.o.b. cars, New York. Fir based on Wash. and Ore. points to New York shipping area; pine based on freight from Norfolk.

Dimensions	Points	Length	By Rail — Pine*	Fir
12-in. at butt	6-in.	30 to 50-ft.	$0.36	....
12-in.— 2-ft. from butt	6-in.	50 to 59-ft.	.39	....
12-in.— 2-ft. from butt	6-in.	60 to 69-ft.	.43	....
12-in.— 2-ft. from butt	6-in.	90 to 100-ft.	....	.72
13-in.— 3-ft. from butt	5-in.	91 to 100-ft.	....	.73
14-in.— 2-ft. from butt	6-in.	50 to 69-ft.	.43	.80
14-in.— 2-ft. from butt	6-in.	70 to 79-ft.	.47	.74
14-in.— 2-ft. from butt	5-in.	80 to 85-ft.	.60	.75
14-in.— 2-ft. from butt	5-in.	85 to 89-ft.	....	.76
14-in.— 2-ft. from butt	5-in.	90 to 100-ft.	....	.80

* Pine piling over 80-ft. available only in limited quantities.

RAILWAY TIES

Prices f.o.b. per tie for carload lots:		6"x8"x8' Untr.	6"x8"x8' Tr.	7"x9"x8'6" Untr.	7"x9"x8'6" Tr
Boston	Oak[i]	.....	.....	.....	.....
	Pine[i]	.....	.....	.....	.....
New York	S. L. Sap Pine	$1.65	$2.85	$2.00	$3.30
	Mixed Oak	1.80	3.05	2.50	3.60
Birmingham	Hardwood	1.00	1.60*a*	....	2.25*a*
Chicago	Red Oak	.....	2.55/2.60*a*	....	3.40/3.65*a*
Los Angeles	Douglas Fir	.....	3.00*a*	....	.....
	Redwood	1.86	.....	.....	.....
Philadelphia	Red Oak	2.33	3.13	3.10	4.25*a*
St. Louis	White Oak	2.40	.....	3.07	.....
	Red Oak	2.29	2.95*a*	2.97	3.90*a*
	Sap Pine or Cypress	3.07*a*	.....	.....	.....
San Francisco	Douglas Fir	1.28*e*	2.24*f*	1.70*bf*	3.05*caf*
Montreal	Birch or Maple	....*h*	....*h*	....*h*	....*h*

Tr.— Treated; Untr.— Untreated. *a* Creosoted. *b* 7" x 9" x 8'. *c* Empty cell. *e* Green. *f* F.o.b. cars. *h* No constant price available. *i* Not available

CHEMICALS

Water, sewage treatment, road work, f.o.b. carlots, New York

Bleaching powder in drums f.o.b. works, per 100 lb.	$4.25
Chlorine cylinders, liquid, per lb. f.o.b. works	.07–.12
Calcium chloride, 77–80%, flaked, 100-lb. paper bag, f.o.b. works, ton	22.00
Silicate of soda, 52 deg., in drums, f.o.b. works, per 100 lb.	1.80
Soda ash, 58%, in paper bags, per 100 lb. dense	1.50
Sulphate of aluminum, commercial, in 100-lb. bags f.o.b. works	1.50
Sulphate of copper, in bags, 99% per 100 lb f.o.b. works	8.10

ASK UTICA, NEW YORK

96%

OF ALL 6-INCH AND LARGER CAST IRON WATER MAINS EVER LAID IN 25 REPRESENTATIVE CITIES ARE STILL IN SERVICE.

Based on the findings of a survey conducted by leading water works engineers.

CAST IRON PIPE

ABOUT CAST IRON PIPE!

In 1849—one hundred years ago—Utica laid her first 6-inch cast iron pipe. Of all the 6-inch cast iron pipe laid from that date, 98.2% is still in service.

In the same year, Utica installed her first 12-inch cast iron pipe and 99% of all the 12-inch cast iron pipe laid from that date is still in service.

Utica is one of the cities included in the survey of "Survival and Retirement Experience with Water Works Facilities", including cast iron water mains, conducted under the auspices of the American Water Works Association, the New England Water Works Association and the Institute of Water Supply Utilities. The recently published report of the findings of the survey shows that 96% of all 6-inch and larger cast iron water mains ever laid since 1817 in 25 representative cities are still in service.

Utica's experience with cast iron water mains, therefore, while remarkable, and eminently satisfactory to her taxpayers, is not exceptional.

We shall be glad to send on request a copy of our brochure "Survival and Retirement Experience with Cast Iron Water Mains", reprinted by permission. Address Thomas F. Wolfe, Engineer, Cast Iron Pipe Research Association, 122 South Michigan Avenue, Chicago 3, Illinois.

SERVES FOR CENTURIES

STRUCTURAL CLAY BUILDING TILE, BRICK AND LIME—DELIVERED

	STRUCTURAL CLAY TILE PARTITION — SCORED Per M. lots of 2,000 pieces or over. 3x12x12 in.	4x12x12 in.	8x12x12 in.	STRUCTURAL CLAY TILE — LOAD BEARING — SCORED Per M. lots of 2,000 pieces or over. 8x12x12 in.	10x12x12 in.	12x12x12 in.	BRICK Per M. in quantity Common backing	Straight hard	LIME Per ton. In paper. Carload lot. Hydrated finishing	Common hydrated	Pulverized, or lump
Atlanta	.....	.....	.....	.....	.....	.....	$25.00	$25.00	$19.00	$17.50	$17.50
Baltimore	$170.00	$180.00	$320.00	$375.00	.....	.....	32.00*k*	35.00*k*	30.00	20.00	...
Birmingham	97.50	104.00	195.00	231.00	.....	.....	20.00*ff*	22.50*gg*	24.67	18.10	.....
Boston	145.65†	155.35†	291.30†	330.15†	.....	.....	32.00*i*	35.00*i*	30.80†	26.40†	.....
Chicago	115.00	122.50	230.00	.....	.....	.....	21.00	23.00	27.00	19.50	.....
Cincinnati	170.00*j*	180.00*j*	240.00*jdd*	330.00*j*	330.00*j*	330.00*j*	34.00*j*	34.00*j*	22.25*j*	20.50*j*	.....
Cleveland	118.00*cc*	126.00*cc*	236.00*cc*	.....	.....	.....	28.50	28.50	24.00	22.00	27.50*ee*
Dallas	.....	110.00	.....	.....	.....	.....	18.75	33.25	28.00	22.00	.....
Denver	.....	.....	.....	.....	.....	.....	32.00	32.00	34.80*hh*	28.00*hh*	34.00*hh*
Detroit	117.08	124.88	234.15	234.15	$290.68	$332.20	30.00*cc*	31.50*cc*	30.00	28.00	28.00
Kansas City	115.50	122.50	.....	245.00	305.50	367.00	16.00*o*	18.50*o*	36.00*p*	30.00*p*	30.00*p*
Los Angeles	*r*	*r*	.....	*r*	*r*	.....	20.00§	.....	*r*	36.00	35.00
Minneapolis	152.00*p*	176.00*p*	317.00*p*	176.00*wp*	.....	.....	30.00*rp*	.....	35.00*bb*e	26.00*bb*e	35.00*bbde*
Montreal	110.00*aq*	120.00*aq*	225.00*aq*	.....	.....	.....	25.50	37.00	12.50*ub*	14.00*ub*	.....
New Orleans	160.00	160.00	300.00	.....	.....	.....	29.00	.....	38.00	26.00	37.50
New York	118.20*h*	126.00*h*	173.30*h*	189.50*hn*	.....	.....	33.00	.....	34.40	26.80	.....
Philadelphia	112.10	119.60	224.20	269.10	321.20	405.10	27.00	30.00	29.75	17.50	24.50
Pittsburgh	98.50	105.80	181.85	207.30	265.85	303.60	26.00	38.00*y*	20.45	18.65	2.97*m*
St. Louis	120.00	138.50	252.50	252.50	339.50	.....	32.50*al*	30.50*al*	.80*aaap*	.60*aaap*	1.00*aaspee*
San Francisco	132.00*a*	148.50*a*	198.00*dda*	148.50*da*	.....	.....	30.00	.....	24.95	24.95	2.49*m*
Seattle	150.00*cc*	160.00*cc*	.....	160.00*ccw*	.....	.....	32.00*s*	39.00*s*	32.00*ahh*	32.00*ahh*	3.60*mhh*

† F.o.b. *a* Smooth. *b* Per 50 lb. bags. *c* 6 x 12 x 12 in.-3 cell. *d* Pulverized hot. *e* 5% discount for cash. *g* 5½ x 8 x 12. *h* F.o.b. trucks, job site N.Y.C. *i* F.o.b. warehouse only. *j* Truck load or over. *k* $1.00 discount. *l* Red face. *m* Per bbl., 180 lb. *n* 7½ x 7½ x 12. Speed tile. *o* F.o.b. Buffalo. *p* Truck lots. *q* Provincial and Municipal tax extra. *r* Not used because of earthquake danger. *s* 2% discount for cash. *t* 5½ x 8 x 11½. *u* Tax exempt. *v* Sand lime. *w* 5 x 8 x 12. *y* Stacked. *z* Pebble lime price per 80 lb. sack. *aa* Price per sack. Lime not sold per ton. *bb* LCL. *cc* Truck delivery. *dd* 6 x 12 x 12. *ee* Pebble lime. *ff* 80% common. *gg* Select. *hh* LCL. § F.o.b. plant.

PAINT, ROOFING—F.O.B. CARLOAD LOTS

	RED LEAD Per 100 lb. in 600-lb. (Approx.) bbl. Dry *a*	WHITE LEAD Per 100 lb. in 100 lb. cases In oil *w*	READY-MIXED PAINT Per gal., drums Graphite *b*	Aluminum *c*	Ferric Oxide *d*	ROOFING SUPPLIES Carload lots f.o.b. factory Rolls, slate surfaced, 85-90 lb. per sq.	Asphalt felt, per 100 lb.	Tar felt, per 100 lb.	Asphalt coating per gal.	Tar pitch 360 lb. bbl. per ton
Atlanta	$25.60	$33.125	$1.75	$2.70	$1.65	$2.06‡	$2.06‡	$2.06‡	$1.00‡	$36.00‡
Baltimore	25.35	32.75	2.25	3.50	2.75	2.75	3.30	3.30	.55	36.00
Birmingham	25.60	33.125	4.40	4.52	....	3.05	3.00	3.00	.48	42.00*ee*
Boston	25.35	32.75	....	....	....	....	....	2.75‡*g*	....	34.00
Chicago	25.35	32.75	....	....	....	2.47‡*u*	2.67‡*o*	2.67‡*o*	35.00‡*bbe*	38.00‡
Cincinnati	25.35	32.75	....	....	....	2.44‡	2.54‡	2.54‡	.35*y*‡	42.00‡
Cleveland	25.35	32.75	3.00	3.00*a*	3.00	2.44	2.54*o*	2.54*o*	.32*y*	38.00
Dallas	25.35	32.75	....	4.05	....	3.50*j*	3.75*g*	4.35*g*	.30	44.00
Denver	25.35	33.25	2.88	4.38	2.63	3.17*o*	3.10*o*	2.54*o*	.41*ff*	48.00
Detroit	25.35	32.75	3.24	2.72	3.60	2.32	2.41	2.41	....	36.00
Kansas City	25.35	32.875	2.40*g*	3.35*g*	....	....	....	....	.36*y*	....
Los Angeles	25.60	33.25	2.80	4.00	3.50	2.41	1.77*e*	*l*	.65	*l*
Minneapolis	25.35	33.13*m*	....	....	....	2.32*idd*	2.41*hidd*	2.41*hidd*	.336*idd*	35.00*rdd*
Montreal	.....	25.65	3.25*p*	4.20*p*	3.62*p*	3.25*t*	3.00*tf*	3.00*tf*	.73	2.60*kl*
New York	25.35	32.75	3.45*y*	....	3.45*y*	2.32	2.41*o*	2.41*o*	.34*s*	35.00
Philadelphia	25.35	32.75	3.25	3.65	3.15	2.54	2.94	2.94	.37	26.00
Pittsburgh	25.35	32.75	2.00	2.40	1.90	3.00	3.10*o*	3.10*o*	.37	40.00
St. Louis	25.35	32.75	....	....	....	2.23	2.413*h*	2.413*h*	.36	36.00
San Francisco	25.60	33.00	1.80	2.75*n*	1.35	2.27*x*	3.30*aa*	....	.38*y*	.....
Seattle	25.60	33.25	2.95*m*	2.95*m*	....	3.25*mqcc*	3.35*hmcc*	....	.49*mcc*	58.58*jmcc*

‡ Delivered. Note: Red lead in oil 50c higher than white lead in oil. *a* Red lead prices change frequently due to pig lead price changes. *b* U. S. War Dept. Spec. 3-49A. *c* ASTM Spec. D266-31. *d* 80% minimum ferric oxide. *e* 15 lb. *f* Per 432 sq. ft. *g* 50 gal. drums. *h* Per roll. 65 lb. *i* Net carload lot prices; Minneapolis and vicinity. *j* Asphalt patch. *k* Per cwt. *l* Not used. *m* 1% discount for cash. *n* May, 1941 price. *o* Per 60-lb. roll. *p* Tax included. *q* Per 90-lb. roll. *r* F.o.b. factory Chicago. *s* ASTM Spec. D266-41. *t* Federal tax included. *u* Per 90 lb. square. *v* Per ton. *w* Price to large paint contractors is $1.25 less. *x* Mineral surfaced. *y* 55-gallon container. *z* Drums. *aa* Approximate cost per 100 lbs. *bb* Roofers coating and cement. Price per ton. *cc* LCL, truck delivery. *dd* 2% cash discount. *ee* Asphalt, in 100 lb. package. *ff* 5-gal. drums.

SKILLED AND COMMON WAGE RATES—PER HOUR

	Bricklayers	Carpenters	Struct. Iron Workers	Hoisting Engineers	Plasterers	Electrical Workers	Steamfitters	Common Labor Building	Common Labor Heavy Const.
Atlanta	$2.50	$1.775	$2.00	$2.00	$2.00	$2.00	$2.00	$0.85	$0.95
Baltimore	3.00	2.25	2.40	2.20-2.40	2.25	2.25	2.25	1.25	1.25
Birmingham	2.50	1.80	2.15	1.75	2.20	2.25	2.25	.95	1.05
Boston	2.50	2.10	2.40	2.45*c*	2.50	2.30	2.30	1.55	1.55
Chicago	2.40	2.35	2.40	2.35	2.40	2.425	2.35	1.70	1.70
Cincinnati	2.50	2.20	2.35	2.50	2.375	2.375	2.35	1.46	1.46
Cleveland	2.375	2.325	2.375	2.25	2.375	2.375	2.375	1.725	1.725
Dallas	2.50	2.25	2.25	2.25	2.125	2.00	2.375	1.075	1.275
Denver	2.25	2.10	2.00	2.15	2.25	2.25	2.24	1.40	1.35
Detroit	2.50	2.20	2.40	2.40	2.50	2.40	2.40	1.575	1.575
Kansas City	2.50	2.05	2.20	2.275	2.50	2.30	2.375	1.475	1.40
Los Angeles	2.62	2.0375	2.30	1.9875	3.125	2.40	2.50	1.4875	1.4875
Minneapolis	2.25	2.05	2.175	2.00	2.35	2.21	2.25	1.45	1.45
New Orleans	2.50	1.875	2.25	2.125	2.00	2.30	2.25	1.025	1.025
New York	3.20*b*	2.75*b*	3.00	3.00	3.20*a*	3.00*a*	2.75*b*	1.70	1.70
Philadelphia	2.75	2.25	2.65	2.50	2.50	2.375	2.50	1.25	1.25
Pittsburgh	3.00	2.50	2.50	2.65	2.625	2.375	2.50	1.50	1.50
St. Louis	2.75	2.45	2.425	2.55	2.50	2.50	2.50	1.50	1.65
San Francisco	2.8125	2.16	2.40	2.125	2.25	2.50	2.375	1.525	1.525
Seattle	2.495	2.195	2.395	2.33	2.495	2.395	2.50	1.795	1.83
Montreal*	1.40	1.25	1.30	1.20	1.40	1.35	1.11	.94	.88

a 6 hr. day. *b* 7 hr. day. * Cost of living bonus now included in basic wage.

MEXICO CITY PRICES

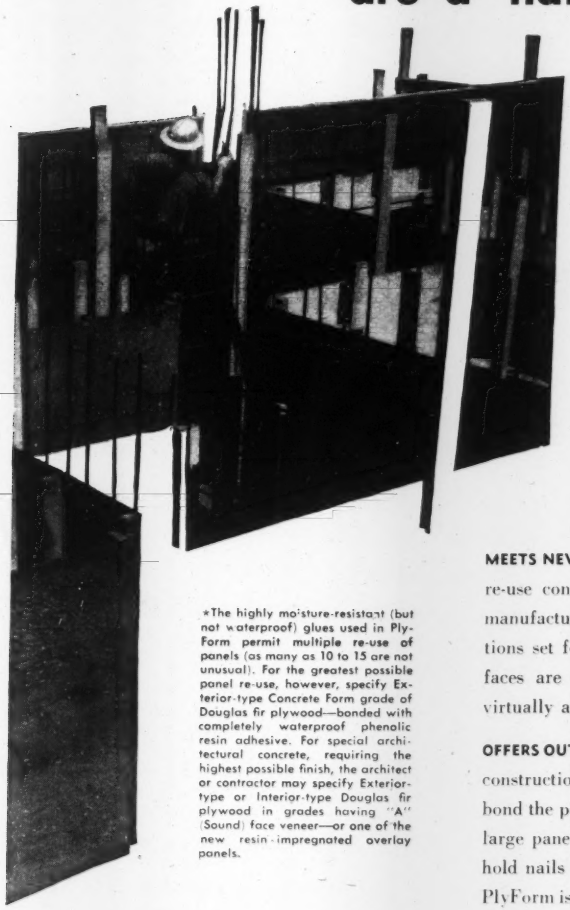
In Pesos, F.o.b. City		Jan. '49	Feb. 49
Common Wages—Building (8 hr. day)	av. per hr.	.57	.57
Common Wages—Heavy Const. (8 hr. day)	av. per hr.	.75	.75
Skilled Labor Wages			
Carpenters (8 hr. day)	av. per hr.	1.25	1.25
Bricklayers (8 hr. day)	av. per hr.	1.25	1.25
Struct. Iron Workers (8 hr. day)	av. per hr.	1.50	1.50
Struct. Steel Shapes 3"-15" x 12 meters	per ton	1,000.00	1,000.00
Reinf. Steel, Corr. Rods ⅜" x 12 meters	per ton	1,070.00	1,070.00
½" x 12 meters	per ton	1,060.00	1,060.00
⅝" x 12 meters	per ton	1,050.00	1,050.00
¾" x 12 meters	per ton	1,050.00	1,050.00
⅞" x 12 meters	per ton	1,050.00	1,050.00
Gravel truck load of 3½ cu. meters			
Blue Gravel	per tr. load	35.00	35.00
Rose Gravel	per tr. load	35.00	35.00
Cement, Std. Port. (Tolteca)	per ton	120.00	120.00
Lumber			
Mex. Sacred Fir (Oyamel)	per M ft.	375.00	375.00
1st Class Pine	per M ft.	750.00	750.00
2nd Class Pine	per M ft.	450.00	450.00

ENR Skilled Average: (Bricklayers, Carpenters, Ironworkers) $2.376. **ENR Common Average:** $1.424

Smooth, Fin-Free Concrete Surfaces are a "natural" when you use the NEW

PLYFORM

Concrete Form Panel



GENUINE DOUGLAS FIR PLYWOOD
PLYFORM
CONCRETE FORM PANEL
INTERIOR TYPE GRADE B-B
D.F.P.A. INSPECTED

*The highly moisture-resistant (but not waterproof) glues used in PlyForm permit multiple re-use of panels (as many as 10 to 15 are not unusual). For the greatest possible panel re-use, however, specify Exterior-type Concrete Form grade of Douglas fir plywood—bonded with completely waterproof phenolic resin adhesive. For special architectural concrete, requiring the highest possible finish, the architect or contractor may specify Exterior-type or Interior-type Douglas fir plywood in grades having "A" (Sound) face veneer—or one of the new resin-impregnated overlay panels.

MEETS NEW GRADE SPECIFICATIONS . . . PlyForm—the multiple re-use concrete form panel of Douglas fir plywood—is now manufactured in strict accordance with the new grade specifications set forth in U. S. Commercial Standard CS45-48. Both faces are of B (Solid) veneer—smooth and firm, meeting virtually all concrete construction requirements.

OFFERS OUTSTANDING ADVANTAGES . . . PlyForm's superior ply construction, plus the highly moisture-resistant glues* which bond the plys, make it ideal for multiple re-use form work. The large panel sizes go up quickly, are light and easy to handle, hold nails firmly, are easy to work with hand or power tools. PlyForm is strong, rigid, puncture-proof, water and mortar tight. The smooth, solid panel faces produce concrete surfaces that are free from joints and fins, smooth and easy to finish. PlyForm panels are sanded both sides, edge-sealed with a distinctive green sealer, and mill-oiled unless otherwise specified.

Send for these booklets

Two booklets: "The New PlyForm" and "Concrete Forms of Douglas Fir Plywood" are now available. They will help you gain the full advantages offered by Douglas fir plywood concrete form panels. Write the Douglas Fir Plywood Association office nearest you: Tacoma Building, Tacoma 2, Washington; Shoreham Building, Washington 5, D. C.; Daily News Building, Chicago 6; The 500 Fifth Avenue Building, New York City 18.

Douglas Fir PLYWOOD

LARGE, LIGHT, STRONG

Real Wood Panels

Any way you look at it, a poor wiring system cuts lighting efficiency . . . causes headaches for plant electricians and maintenance men as well as for production workers.

Improving plant lighting and reducing maintenance costs are important functions of General Electric wiring materials. Exciting new products and a full line of old standbys make General Electric the right choice for every wiring requirement.

1. **NEW G-E REMOTE CONTROL** wiring puts switches for various lights in many convenient locations. Master panel can be located at production head's desk. Banks of switches can also be located at convenient points in the shop for local control. This flexible, new wiring system also permits control of any or all lights from distant locations, such as other offices or a master-control point. The G-E remote control wiring system makes multi-point switching economical and easy to put in.

2. **G-E REMOTE CONTROL WIRE**—lightweight, with two or three conductors—was specially designed for remote control wiring. This trim-looking wire can be installed either concealed or exposed—makes a neat installation when it's run along wall surfaces. It permits remote control switches to be placed practically anywhere. The use of a low-voltage relay makes this small-size wire practical.

3. **AVA POWER CABLE** is a natural for bringing in power to a high-level lighting installation like this. And, when you think of power cables, think of General Electric Deltabeston* cables. They'll save you maintenance grief, because they're built to beat ambient and operating heat. They can help you save space, too, because they are designed to carry more current than ordinary cables of the same size.

*Trade-mark Reg. U.S. Pat. Off.

4. **TYPE TW WIRE** is recommended for installation in raceways. Smooth-finished G-E Type TW can be cut and stripped with little effort—pulls through conduit easily when wiring changes are necessary. Small diameter and long life are features of this G-E thermoplastic wire—use it to help your wiring system stay modern.

5. **CONDUIT,** of course, should be General Electric "White"—the rigid conduit that's *hot-dip* galvanized for extra protection. High-grade steel—galvanized inside and out, and lacquer-coated—gives you maximum wiring protection with a minimum of maintenance. Remember to specify "G-E White."

Your distributor of General Electric construction materials can supply you with any of these materials, or with any of thousands of other items from the General Electric line. For more information, contact him, or write to Section K17-332, Construction Materials Department, General Electric Company, Bridgeport 2, Connecticut.

GENERAL ELECTRIC

CONSTRUCTION REPORTS

Bids Asked—Low Bidders—Contracts Awarded—First Section

Compiled by Business News Department—Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

ELSIE EAVES, Manager — *J. A. MAHONEY, Reports* — *M. R. ROESSLER, Statistics*

WATER SUPPLY

LOW BIDDERS

Tex., Houston—City, City Hall, Feb. 25, water pump station, at Northeast Plant, Roland and Linn Sts., from A. Meyerson, 5742 Charleston St., **$292,760**, est. $275,000; installing yard pipelines at Northeast Water Pump Plant, from Viking Constr. Co., 2233 Commerce St., **$146,670**, est. $135,000.

Va., Norfolk—City, City Hall, Feb. 23, two 1 m. g. welded steel elevated water storage tanks, from Chicago Bridge & Iron Co., 332 S. Michigan St., Chicago, Ill., **$273,200**. CD 2/8—ENR 2/10.

Wis., Manitowoc—Manitowoc Public Utilities, 817 Franklin St., Feb. 21, lake intake extens., from McMullen & Pitz Constr. Co., 323 Commercial St., **$233,506**.

CONTRACTS AWARDED

Calif., Long Beach—Long Beach City Water Comm., Long Beach, 12 m. g. reservoir, appurtenances, to Walter, Groshong, 4335 California Ave., Long Beach, **$197,754**. Bids 2/3, awarded 2/16. CD 12/6/44—ENR 12/28/44.

Ga., Augusta—City, Feb. 23, water filtration plant adn., to Batson-Cook Co., West Point, **$228,490**. Bids 2/23. CD —ENR 2/3.

†Mont., Fort Peck—U. S. Eng., Fort Peck, raw water line from power house to filtration plant, Fort Peck, Inv. Eng. 24-016-49-56, to Phelps-Drake Co., Inc., 1415 S. E. 8 St., Minneapolis, Minn., **$31,153**. Est. $62,904. Bids 2/23, awarded 2/24. CD 2/8—ENR 2/10.

B. C., Oak Bay—Municipality, 12 in. c. I. watermain installation, own forces, **$45,000**. A. S. G. Musgrave, Oak Bay, engr. CD 4/12/46.

Ont., Essex—Town, J. C. Linton, mayor, K. Brett, clk., 40 ft. steel water storage tank, to Horton Steel Wks. Ltd., Northern Ontario Bldg., Toronto. Approx. **$61,000**. CD 1/24/47—ENR 2/6/47.

SEWERS, WASTE DISPOSAL

BIDS ASKED

March 15

Minn., Hopkins — City, C. C. Congdon, mgr., trunk sewer, 2 sewage pump stations, in Hopkins, and other in St. Louis Park, $50,000. Plans deposit $15 each. R. D. Thomas & Assoc., 400 Metropolitan Life Bldg., Minneapolis, engrs. CD 2/26/48.

LOW BIDDERS

Ala., Mobile — State Dpt. Docks & Terminal, c/o J. P. Ewin, Inc., engr., P. O. Box 561, Zone 3, Feb. 23, concrete culvert for intercepting sewer in Water St. from Congress to Beauregard Sts. and Beauregard St. from Water St. and to Mobile River, from Espy Paving & Constr. Co., 653 N. Commerce St. **$215,148**. CD 1/26—ENR 2/3.

Wash., Tacoma — City, City Hall, Feb. 21, sewers in L. I. D. No. 1813 in Arlington Dist. between Warner and Wapato Sts., S. 58 and 72 Sts., from Valley Constr. Co., 7708 Rainier Ave., Seattle, **$150,923**. Est. $286,313. D. E. Morris, city engr.

Wis., Montello — City, Feb. 21, sewage treatment plant, from John Schliese, Sturgeon Bay, **$70,088**. CD 1/25—ENR 1/27.

CONTRACTS AWARDED

Calif., Los Angeles — 20th Century Fox Film Corp., 10201 W. Pico Blvd., concrete block incinerator. Owner builds. **$70,000**. John S. Ferguson, 10201 W. Pico Blvd., engr.

Ill., Princeton — City, City Hall, storm and sanitary sewers, to Normoyle & Berg, Rock Island. **$120,792**. Bids 2/8. CD 1/11—ENR 1/13.

Wis., Milwaukee — City, storm and combined sewers W. Wisconsin Ave., to L. & L. Service Co., 906 E. Center St., Zone 12, **$51,278**. Bids 2/21.

B. C., Oak Bay — Municipality, storm water drain, own forces. **$50,000**. A. S. G. Musgrave, Oak Bay, engr.

BRIDGES

LOW BIDDERS

Alabama—State Hy. Dpt., Montgomery, Feb. 25, 0.05 mi. bridge over Bear Creek on county road between Margerum and Allsboro, from W. A. McWaters, 2 Clayton St., Montgomery, **$61,885**; 0.501 mi. approaches and overhead on Holman-Gordo Rd., Pickens Co., from Blount Bros., Tuskegee, **$55,290**. CD 2/9—ENR 2/17.

Ala., Mobile—State, Mobile, concrete culverts, from Espy Paving & Constr. Co., 108 E. Bay St., Savannah, Ga., **$215,148**.

†Illinois—U. S. Eng., 520 Merchandise Mart, Chicago, Zone 54, Feb. 17, Toledo, Peoria & Western R.R. Bridge over New York, Chicago & St. Louis R.R. tracks, Farmdale Reservoir, Farm Creek, Serial No. Eng., 11-032-49-60, from Fitz Simons & Connell Dredge & Dock Co., 10 S. LaSalle St., Chicago, **$134,385**. Est. $118,255. CD 1/21—ENR 1/27.

Kentucky—State Hy. Dpt., Frankfort, Feb. 25, bridge and 0.125 mi. traffic bound limestone or traffic bound slag approaches, Grayson-Sandy Hook Rd., S 268(8) SP 22-68, Leon, Carter Co., from R. R. Dawson Bridge Co., Bloomfield, **$119,307*****bridge floor Brownsville Bridge, Brownsville-Leitchfield Rd., S 209(6); SP 31-18, Edmonson Co., from Codell Constr. Co., Inc., Winchester, **$120,813*****overhead bridge,-Paducah-Eddyville Rd., FG 530(3); SP 70-190, Livingston Co., from Wellner Contg. Co., Winchester, **$156,614*****bridge and 0.16 mi. traffic bound river gravel approaches, Highland Creek, Morganfield-Smith Mills Rd., S 173(1), SP 113-67, Union Co., from Lyons & Breeden, Rogersville, Tenn., **$89,188**. CD 2/9—ENR 2/17.

Mississippi—State Hy. Dpt., Jackson, Feb. 24, 941 ft. bridge over Leaf River, incl. 340 ft. steel truss span, steel I-beam approaches, concrete deck, steel pile bents for approaches, 3 concrete piers, untreated pile for truss spans, at Hattiesburg, Forrest Co., from Cook Constr. Co., Standard Life Bldg. W. Jackson, **$310,777**. Est. $350,000. CD 2/9—ENR 2/17.

Missouri—State Hy. Dpt., Jefferson City, Feb. 25, one 53 ft. concrete rigid frame bridge over Ramp Overpass, Rt. 69, Proj. UI 888 (3 A, road from southwest Trafficway, Sta. 96 plus 01, and two 90 ft. continuous multiple span bridge over Ramp Overpass, Rt. 69 Proj. UI 888 (3) A, road from Southwest Trafficway, Sta. 92 plus 89, both Jackson Co., from Swenson Constr. Co., 114 W. Maple St., Kansas City, Mo., **$112,081** and **$476,912** respectively***two 67 ft. and one 78 ft. continuous I-beam and one 50 ft. I beam spans, over Peno Creek, Rt. 61, Proj. F 188 (2) A, road from Frankford southeast, Sta. 907 plus 28, Pike Co., from Knutson Constr. Co., 3525 Broadway, Kansas City, Mo., **$99,684**. CD 2/11—ENR 2/17.

Tex., Beaumont—Jefferson Co., Courthouse, Feb. 21, concrete, steel vehicle bridge over Hildebrandt Bayou on Hildebrandt Rd., from Trotti & Thomason, Inc., 1000 Rockett St., **$81,019**. Charles L. Davidson, co. engr.

West Virginia and Maryland—State Road Comm., Charleston, W. Va., Feb. 15, from Agnew Constr. Co., Ronceverte, W. Va., substructure and roadway approach of West Virginia I-beam span, Keyser-McCool Bridge 1713, over Potomac River, U. S. Route 220, FAP F-480 (1), Mineral Co., W. Va., **$270,187**; substructure plate girder spans of above bridge, FAP-F-481 (1), Mineral Co., W. Va. and Allegany Co., Md., **$111,909*****from Virginia Bridge Co., 821 Madison Ave. N.E., Roanoke, Va., steel superstructure of the West Virginia I-beam approach span of above bridge, FAP F-480 (1), Mineral Co., W. Va., **$272,670**; steel superstructure for plate girder spans of above bridge, FAP F-481 (1), Mineral Co., W. Va. and Allegany Co., Md., **$168,349**; steel superstructure for Maryland I-beam approach span of above bridge, FAP F-189 (3), Allegany Co., Md., **$54,715**. CD 1/24—ENR 1/27.

CONTRACTS AWARDED

Minn., Minneapolis — State Minnesota Hy. Dpt., 1246 University Ave. St. Paul, City of Minneapolis and Milwaukee R.R., R. J. Middleton, ch. engr., Union Station, Chicago, Zone 6, Ill., Bridge 6663 between Cedar Ave. and Minnehaha Ave., 22 St., S. P. 2715-02 (TH 36-114) Minn. Proj. U. 383 (6), to Fielding & Shepley, 2158 Bohn Ave., St. Paul, **$444,518**. Bids 2/18. CD 2/2—ENR 2/10.

Mississippi—State Hy. Dpt., Jackson, bridge on 0.055 mi. U. S. Hy. 80 through Meridian, F. A. Urban Grade Crossing, Proj. NoUGI-251 (4), Lauderdale Co., to John H. Moon, Port Gibson, **$144,877**. Est. $176,000. Bids 2/22 Awarded 2/22. CD 2/14.

Rhode Island—State of Rhode Island and Providence Plantations, Providence, Woodville, and Woodville Canal Bridge, Contr. 4953, Hopkinton and Richmond, to Westcott Constr. Co., 52 N. Washington St., North Attleboro, Mass., **$104,825**. Bids 2/2, awarded 2/21.

South Carolina—State Hy. Dept., Columbia, 3 bridges, Docket 1838.219, Dorchester and Orangeburg Counties, to Wannamaker & Wells, Inc., Orangeburg, **$73,085**. Bids 1/31—ENR 2/3.

Tex., Brazoria — Brazoria Co., Freeport, bridge constr., imprvs., various roads, force account. **$90,000**. T. J. Dunbar, Jr., Freeport, engr.

PROJECTS COVERED

Projects—By Size

Construction projects here reported cover the United States and Canada, are of these minimum sizes or larger: water supply, earthwork, waterways $25,000; other public works $50,000; industrial buildings $65,000; other buildings $250,000.

Classes of Construction

(Name in order of Listing)

Water Supply	Power
Sewers, Waste Disposal	Public Buildings
Bridges	Commercial Buildings
Streets & Roads	Industrial Buildings
Earthwork, Waterways	

Unclassified

Stages Reported

PROPOSED WORK: Including appointment of engineer or architect.

BIDS ASKED (new announcements only). For full calendar, see also preceding issues of ENR.;

LOW BIDDERS: On jobs below $500,000 value all low bidder news will be the final reports published on the projects involved except where news is made to the low bidder. In this case, a supplementary contract award report will be published.

CONTRACTS AWARDED: Except awards to low bidders previously reported in low bidder stage.

Dates shown are of issue in which last previous report was published.

Symbols and Abbreviations Include:

† Federal Government
● Project of $1,000,000 or over.
ENR Engineering News-Record
CD Construction Daily

STREETS AND ROADS

BIDS ASKED

March 17

†Colorado—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, relocation State Hy. 280, Granby Reservoir, Colorado-Big Thompson Proj., Spec. 2748. Extended date CD 2/1—ENR 2/3.

March 22

Tex., Dallas—City, Earl Goforth, secy., concrete 0.375 mi. Latimer St., Grand to Corinth Sts. $70,000. Plans deposit $10. ENR 12/23.

LOW BIDDERS

Alabama — State Hy. Dpt., Montgomery, Feb. 25, surf. tr. 3.645 mi. from Tuscaloosa Co. line to Berry, Fayette Co., from L. J. Cousins, 18 S. Lewis St., Montgomery, **$67,650*****surf. tr. 7.29 mi. from Cottonwood to Florida State Line, Houston Co., from Joe F. Walters, Troy, Ala., **$98,401*****asph. 4.225 mi. Avondale-Irondale Rd., Jefferson Co., from Dozier Bros., Mt. Meigs, **$783,187*****surf. tr. 5.619 mi. Sumiton-Empire Rd., Walker Co., from America-Alabama Rd. Constr. Co., Career Bldg., Birmingham, **$86,164**. CD 2/9—ENR 2/17.

Calif., San Francisco—Dpt. P. Wks., City Hall, Feb. 23, imprv. Anza St. between Masonic Ave. and Parker St., Spec. 20,427, from Eaton & Smith, 819 Ocean Ave., San Francisco, **$110,714**. CD 2/2—ENR 2/10.

Kentucky—State Hy. Dpt., Frankfort, Feb. 25, 8 conc. Class I (slag aggregate), 6.75 mi. Ashland-Grayson Rd., F 164); FI 8(4); SP (10-165) (10-285), Boyd Co., from Middle States Bituminous Corp., Ashland, **$306,228**; bit. 9.176 mi. Sebree-Henderson Rd., F 526(9) SP 13-13(9) (51-59) (51-293), from Tuscaloosa Co. from Paul A. Teegarden, Inc., Columbus, Ind., **$431,158**. CD 2/9—ENR 2/17.

Louisiana—State Hy. Dpt., Baton Rouge, Feb. 25, shell base course, 2 in. hot mix open graded shell c. conc. 6 mi. Junction U. S. 2-Pontchartrain Bridge Hy., State Rt. C 1580, S. P. 18-01-06, Orleans Parish, from Texas Bitulithic Co., Forma Rd., New Orleans, **$96,839**. CD 2/2—ENR 2/10.

Missouri—State Hy. Dpt., Jefferson City, Feb. 25, c. conc. 1.904 mi. Rt. 61, in and near Farmington, Proj. F 254 (4), St. Francois Co., from Cameron Joyce & Co., Keokuk, Ia., **$167,906**. Cancelled bids to have been opened Feb. 25, b. conc. 0.486 mi. Rt. 52, from Versailles southeasterly to Eldon, Proj. F 474(2), 3.066 mi. Rt. 52, from Versailles southeasterly to Eldon, Proj. F 800 (5) D, both Miller Co.; b. conc. 4.602 mi. from Versailles southeasterly to Eldon, Proj. F 800 (5) B, 3.747 mi. Rt. 52, from Versailles southeasterly to Eldon, Proj. F800 (5) C, 4.303-mi. Rt. 52, from Versailles southeasterly to Eldon, Proj. F 800 (5) A, all foregoing Morgan Co. CD 2/11—ENR 2/17.

Tex., Houston—Harris Co., Courthouse, 7.9 mi. asph. paving Spring-Cypress Rd., from W. E. Worthen, 7722 E. St., **$116,976**. CD 8/28/47—ENR 9/18/47.

Tex., Midland—City, R. H. Gifford, mayor, Feb. 22, asph. paving, from Brown & Root,

Inc., P. O. Box 3, Houston, **$399,849.** Est. $235,000. CD 2/8—ENR 2/10.

Wash., Yakima — Yakima Co., Courthouse, rejected bids Feb. 25, grading, ballasting, crushed stone surf. and mfg., stockpiling crushed stone 4.9 mi. roads in vicinity of Tieton, Proj. No. 330, L.B. **$84,388.** CD 2/16.

CONTRACTS AWARDED

Calif., Hayward—City, City Hall, widening Main St., to Independent Constr. Co., Ltd., 56 Ave. and Clement St., Oakland, **$53,424.** Awarded 2/21. Hugh Gallagher, City Hall, city engr.

Mississippi—State Hy. Dpt., Jackson, grading, drainage structures, culverts, bridge 1.705 mi. County Highways, between Holcomb and Carrollton, F. A. S. P. S. 253 (1), Grenada Co., to Boyd Constr. Co., Columbia, **$70,686** est. $80,000***grading, drainage structures, culverts and box bridges 9.329 mi. County Highways between Ripley and Dumas, and between Ripley and Bonneville, F. A. S. P. S 163 (1) and S 293 (4), Tippah Co., to Alvie Goolsby, Ripley, **$84,388,** est. $93,000. Bids 2/22. CD 2/14.

South Carolina—State Hy. Dpt., Columbia, grading, paving Dockets 2.269, 6.257 and 8.260, Aiken and Barnwell Counties to F. J. Buckley & Co., Orangeburg, **$146,541***Dockets 3.249, 3.250 and 23.254 Allendale and Hampton Counties, to W. L. Cobb Constr. Co., Decatur, Ga., **$62,708***Dockets 4.305, 4.306 and 4.309 Anderson Co., to Reeves Bros. Constr. Co., Inc., Easley, **$53,807***Dockets 31.281 and 21.385, Florence Co., to Wilson Constr. Co., Marion, **$102,246***Dockets 23.251 and 23.290, Greenville Co., to Sloan Constr. Co. Inc., Greenville, **$97,424***Docket 8.264, Kershaw Co., and Dockets 32.268, 32.274, Lexington Co., to Wm. F. Bowe & Co., Augusta, Ga. **$139,043** and **$100,967** respectively***Dockets 31.232 and 31.235, Lee Co., to Blythe Constr. Co., Sumter, **$134,906***Docket 32.290, Lexington Co., to Cherokee Inc., Sumter Hy., Columbia, **$63,078,** Grand total $889,722. CD 1/31—ENR 2/3.

Tex., Bellville — Austin Co., W. D. Bryan, Judge, Courthouse, road imprvts., asph. in Precincts 1 and 2, **$120,000;** Precincts 3 and 4, **$110,000,** force account. CD 5/12—ENR 5/27.

Tex., Brazoria — Brazoria Co., Freeport, asph. road paving, imprvs., force account, **$110,000.** CD 1/18—ENR 1/20.

Tex., Edinburg—Hidalgo Co., c/o Comrs. Court, Courthouse, opening new roads, reconditioning old flexible base and topping same, own forces, **$100,000.** J. P. Griffin, co. engr. CD 3/7/46—ENR 3/21/46.

Tex., Waco—McLennan Co. Judge, Courthouse Bldg., addnl. road imprvs. and surf. toward Bosque Co. line, **$60,000;** in southern and eastern part of county, **$55,000,** force account. CD 8/28/47—ENR 9/18/47.

Vermont—State Hy. Dpt., Montpelier, road constr. Contr. S. (33) (1) Montgomery-Enosburg, to Blow & Code, St. Albans, **$91,499;** Contr. S. (23) (2), Reading-Woodstock, to Miller Constr. Co., Secretary Hyd., Windsor, **$100,051.** Awarded 2/4.

†Washington—Pub. Roads Admin., Broadway Oak Bldg., Portland, clearing, grubbing, grading, draining 2.78 mi. Olympic Hy., Olympic Natl. Foresi, Washington Forest Hy. Proj. 1-B, Jefferson Co., to Consolidated Constr. Co., 3102 38 St., Tacoma, **$246,871.** Bids 2/24. CD 2/14—ENR 2/17.

West Virginia—State Hy. Dpt., Charleston, c. conc. and guard rail, 3.987 mi. Parkersburg-Lubeck Rd., F 306 (6), Wood Co., to Charleston Constr. Co., 3 Spring St., Charleston, **$333,455.**

B. C., Oak Bay—Municipality, road imprvs., paving own forces, **$80,000,** A. S. G. Musgrave, Oak Bay, engr.

Ont., Toronto—Municipality, c. conc. Dufferin St. to Kilmer Van Nostrand Ltd., 315 Eglinton Ave., W., **$81,150.** Murray Stewart, city engr. CD 10/9/46—ENR 10/31/46.

EARTHWORK, WATERWAYS

BIDS ASKED

March 14

†N. Y., Freeport — Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, bulkhead, Naval Reserve Training Center, Spec. 21,914. Plans deposit $10.

March 31

●†Pennsylvania — U. S. Eng., 925 New Federal Bldg., Pittsburgh, cofferdams, fob. stripping, borrow and common excav., 129,000 cu. yd. rock excav., 145,000 cu. yd. line drilling, 33,000 sq. ft. rolled and random fill, 50,000 cu. yd. dumped rock, 13,000 cu. yd. drilling holes, 10,000 lin. ft. furnishing cement, 300,000 bbl. concrete, 331,000 cu. yd.; reinforcing steel, 728,000 lb. c. m. pipe, 1,100 lin. ft. bit. surface, 13,000 sq. yd. installing equip. furnished by Govt., 2,275,000 lbs. service bridge, fob misc. metalwork, 107,000 lbs. misc. piping, 123,000 lb. gantry crane rail, $2,000 lbs.; power and lighting sys., job, and slide gate hydraulic operating sys. job, $8,000,000-$10,000,000.

LOW BIDDERS

Ark., Decatur—State Game & Fish Comn., Little Rock, earthen dam on Wolf Creek, from Buc Ton Constr. Co., Hazen, **$56,815.** Joe Burlingham, State Capitol Bldg., Little Rock, engr.

Calif., Oakland — City, City Hall, Feb. 23, Lyon Creek channel and structures, from Frederickson & Watson Constr. Co., 873 81 Ave., **$30,665.** CD 2/8—ENR 2/10.

†Illinois—U. S. Eng., 826 U. S. Court House and Custom House, 1114 Market St., St. Louis, Zone 1, Mo., Feb. 24, levees, Prairie Du Rocher, Illinois and Vicinity (Item II-A) (Edgar Lakes and Prairie Du Rocher and Modoc Drainage & Levee Dists.) Randolph Co., Serial No. Eng. 23-065-49-109, from Luhr Bros., Inc., Columbia, **$158,480.** Est. $185,640. CD 2/8—ENR 2/10.

†Missouri—U. S. Eng., 601 Davidson Bldg., Kansas City 8, Mo., rejected bids Feb. 3, Gillis St., Lydia Ave. and Prospect Ave. Pump. Plants along right bank of Missouri River, East Bottoms at Kansas City, Serial No. Eng. 23-028-49-68. CD 12/17—ENR 12/23.

†Washington—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., Feb. 24, furnishing, installing 3 electric elevators, Columbia Basin Proj., Grand Coulee Pumping Plant, Spec. 2543, from Westinghouse Electric Corp., 150 Pacific Ave., Jersey City, N. J., **$158,500.** CD 1/31—ENR 2/3.

Quebec—Dpt. P. Wks., Hunter Bldg., Ottawa, Ont., Feb. 23, harbour imprvs., Rouisseau Chapados, from John Cavanaugh, St. Charles, **$54,078.** CD 2/7—ENR 2/17.

CONTRACTS AWARDED

†Arkansas—U. S. Eng., foot of Prytania St., New Orleans, La., approx. 260,000 cu. yd. uncompacted earthwork, Miller Co., Inv. 49-207, to Ray S. Burt, Crystal Springs, Miss., **$63,648.** Awarded 2/25. CD 2/7—ENR 2/17, under LB.

●†Kentucky—U. S. Eng., 303 U. S. Courthouse, Nashville, Zone 1, Tenn., Lots 1, 2, 3, 6 and 7 clearing segments in Group II, Wolf Creek Reservoir, Cumberland River, Serial No. Eng. 40-058-49-54, to Schutt Constr. Co., & Assoc., Genoa, Wis., **$3,989,000.** Bids 1/20. CD 1/31—ENR 2/3, under LB.

Massachusetts—City of Boston, Dpt. P. Wks., City Hall Annex, Boston, dredging, excav., fill, State Piers, Fort Point Channel, to State Dredging & Contg. Co., 62 Condor St., East Boston, **$325,550.** Bids 1/25, awarded 2/3. CD 1/31—ENR 2/3, under LB.

●†Mont., Fort Peck—U. S. Eng., Fort Peck, painting, installing safety features at spillway gate structure, Fort Peck, Inv. Eng. 24-016-49-58, to Hakes Erection Co., Billings, **$41,636.** Est. $57,089. Bids 2/23, awarded 2/24. CD 2/9.

●†South Dakota—U. S. Eng., 1709 Jackson St., Omaha, Neb., intake structure, Schedule A, Fort Randall Reservoir near Lake Andes, Inv. Eng-25-066-49-162, to Al Johnson Constr. Co., 608 Foshay Tower, and Winston Bros. Co., 1470 Northwestern Bank Bldg., Minneapolis, Minn., **$11,839,517.** Bids 2/3. CD 2/7—ENR 2/10, under LB.

AIRPORTS AND AIRBASES

LOW BIDDERS

Mass., East Boston — ROAD — Commonwealth of Mass., State Airport Mgr. Bd., Admin. Bldg., Logan Airport, Feb. 23, approach road, connection to Porter St., incl. gravel fill, paving, underground utilities, Logan Airport, from J. F. White Constr. Co., 201 Alewife Brook Parkway, Cambridge, **$118,240.** CD 2/14—ENR 2/17.

†Minn., Duluth—AIRPORT IMPRVS.—U. S. Eng., 1709 Jackson St., Omaha, Neb., Feb. 24, site preparation, from McGarry Bros., St. Cloud, **$128,614,** aprons and taxiway from A. A. Bodin, 802 Garfield Ave., Duluth, **$137,449,** at Duluth Municipal Airport, Eng-25-066-49-174. CD 1/28—ENR 2/3.

CONTRACTS AWARDED

†Wash., Whidbey Island (br. Seattle)—AIR BASE BLDGS.—Pub. Wks. Officer, 13th Naval Dist., 1611 W. Wheeler St., Seattle, twelve 1 story frame quarters bldgs. for married enlisted men at Naval Air Station (Aulr. Field), to Westland Constr. Co., 1105 Westlake Ave. N. Seattle, **$173,678.** Est. $198,000. Bids 2/21. CD 2/10—ENR 2/17.

LATIN AMERICA

Mexico — Mexican Govt., Serita. de R.H., Balderas, 94, Mexico, D. F., Parral Dam on Parral River, to Constructora Alpha, S. A. Av. Juarez, No. 30, desp. 110, Mexico, D. F. Approx. **2,600,000** Pesos. Bids 9/28. CD 8/12—ENR 8/19.

Mexico, Salamanca—Mexican Govt., Serita. de R.H. Balderas, 94, Mexico, D.F., 83 kilo. upper structures Canal Alti de Salamanca, Guanajuato State., to Construction Oleyza, Viena, No. 16, desp. 11, Mexico, D.F. Approx. **$970,000** Pesos. Bids 2/11. CD 1/14—ENR 1/29.

Mexico, Suchiate—Mexican Govt., Serita. de R.H., Balderas, 94, Mexico, D.F., 18 kilo. grading, structures, principal canal, Suchiate River Irrigation Dist., to Gavol Loha y Strassburger, S. de R.L., Versalles, No. 19, Mexico, D.F. Approx. **590,000** Pesos. Bids 2/21. CD 1/26—ENR 2/3.

PUBLIC BUILDINGS

BIDS ASKED

March 14

†N. Y., Freeport—Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, addnl. facilities, imprvs., Naval Reserve Training Center, Spec. 21,907. Plans deposit $10.

†N. Y., Yonkers—Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, addnl. facilities, imprvs., U. S. Naval Reserve Training Center, Spec. 21,908. Plans deposit $10.

March 15

Ill., Jacksonville—Jacksonville State Hospital, Jacksonville, general and electrical work officers quarters, **$400,000.** C. Herrick Hammond, State Armory, Springfield, archt. CD 4/9/45—ENR 4/19/45.

Ia., Indianola—City, City Hall, switchboard and station wiring, furnish, install transformers, cables and wiring, mechanical work, incl. generating equip., light and power plant, Buell & Winter, 508 Insurance Exchange Bldg., Sioux City, engrs.

Mass., Newton — City, P. Bldgs., Comn., City Hall, 1 and 2 story, bsmnt. Williams School, Grove St., Newton (Auburndale) $400,000. Plans deposit $20. Shepard & Sterns, 65 Franklin St., Boston, archts. CD 9/7—ENR 9/16.

†N. J., Port Newark — Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, addnl. imprvs. U. S. Naval Reserve Training Center, Spec. 21,912. Plans deposit $10.

†N. Y., Syracuse—Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, addnl. facilities, imprvs., U. S. Naval Reserve Training Center, Spec. 21,934.

†N. Y., Watertown—Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., New York, Zone 7, addnl. facilities, imprvs., Naval Reserve Training Center, Spec. 21,932.

March 16

N. Y., Wantagh—Bd. Educ., Union Free School Dist. 23, school, $850,000. Plans deposit $50. Frederick P. Wiedersum, 240 Rockaway Ave., Valley Stream, archt.

March 21

†N. Y., Utica—Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., New York, Zone 7, addnl. facilities, imprvs., U. S. Naval Reserve Training Center, NOY 18092, Spec. 21,925. Plans deposit $10.

Tex., Anson — Anson Independent School Dist., Anson, 1 story, 56x300 ft., brick, hollow tile, structural steel frame school, concrete fdn. $250,000. Plans deposit $25. Don W. Smith, Texas Bank Bldg., Sweetwater, archt.

March 22

Ga., Atlanta—Fulton Co. Bd. Educ., Courthouse, rebuilding Bd. Room and Council Chamber, **$300,000.** Plans deposit $30. Stevens & Wilkinson, 157 Luckie St. N. W., archts. CD 12/16—ENR 1/20.

March 23

Calif., Ventura—San Benaventura Elementary School Dist., 1120 E. Main St., Will Rogers School addn., $300,000. Harold E. Burket, 750 E. Main St., archt. W. A. T. Wheeler, 2033 W. 7 St., Los Angeles, engr.

Kan., Kansas City—Bd. P. Utilities, c/o Burns & McDonnell Eng. Co., engr., 95 and Troost Sts., steam generator CD 11/24—ENR 12/9

April 5

Ga., Gainesville — Hall County Memorial Hospital, Gainesville, hospital, Samuel Inman for Hill & Sons, 1024 Dixie Terminal Bldg., Cincinnati, O., engrs. CD 10/19—ENR 10/21.

†N. Y., Northport—Veterans Admin., 1346 Broadway, New York, Zone 13, constructing, finishing complete, alterations to refrigeration sys. and Bldg. 3, for hospital for Veterans Admin., Vermont Ave. between H and I Sts. N. W., Wash. 25, D. C. CD 5/22/45—ENR 5/24/45.

April 6

● Minn., Mankato—Bd. Educ., Loretta M. Velgel, clk., high school, $2,000,000. Plans deposit $25. Pass & Rockey, Mankato, archts. CD 3/2/48—ENR 3/18/48.

Wis., Sparta—Monroe Co., Sparta, 3 story, 40x65x40x55 ft., rein.-con. brick infirmary remodeling and addn., concrete fdn., $250,000-$300,000. Boyum, Schubert & Sorenson, Hoeschler Bldg., La Crosse, archts.

April 15

Mass., Taunton—City, Municipal Lighting Plant, C. Oliver, mgr., 55 Weir St., superstructure 30x35x90 ft. brick, tile generating bldg., switch gear bldg., Water St. Over $85,000. Plans deposit $50. Jackson & Moreland, 31 St. James Ave., Boston, engr.

April 19

†Tenn., Memphis—U. S. Eng., P. O. Box 97, Zone 1, Fairfax Pumping Station, Serial No. Eng-40-041-49-107.

About May 1

Kan., Garnett—Anderson Co., Garnett, hospital, $300,000. Thomas W. Williamson & Co., National Bank of Topeka Bldg., Topeka, archts. CD 10/29/47—ENR 11/13/47.

LOW BIDDERS

Ill., Princeville — Princeville Community High School Dist. 206, W. R. Cordis, supt. Bd. Edc., Jan. 26, general contract high school, gymnasium unit, from O. Jorgensen & Sons, Clinton, Ia., **$280,805.** CD 10/13/47—ENR 10/30/47.

Mass., Boston — Boston Housing Auth., 10 Post Office Sq., Boston, Feb. 25, sixteen 2 story, bsmnt veterans housing, Mattapan, from Calumet Constr. Co., 50 Calumet St., Roxbury, **$268,517.** CD 2/14—ENR 2/17.

Minn., Hastings — State Dpt. Admin., State Capitol, St. Paul, Feb. 25, general contract

administration bldg., State Hospital, from Steenberg Constr. Co., W 1672 First National Bank Bldg., St. Paul, **$616,695.**

Minn., Rochester — State Dpt. Admin., State Capitol, St. Paul, Feb. 17, general contract 2 story, bsmnt., geriatric bldg., State Hospital, from Hagstrom Constr. Co., 1567 Selby Ave., St. Paul, **$468,950.** CD 1/3—ENR 1/13.

Pa., Kobuta — School Dist. Potter Twp., Kobuta, 1 and 2 story, brick, steel school, from Owen Treharne, Country Club Dr., Elwood City, **$260,000.** B. J. McCandless, Elwood City, archt.

Va., Petersburg — Virginia State College, L. H. Fostgr, pres., Petersburg, Feb. 21, infirmary, from R. H. Wattinger, Exchange Bldg., Richmond, **$306,500.** CD 2/4—ENR 2/10.

●†Wash., Seattle — Seattle Branch, Federal Reserve Bank of San Francisco, National Bank of Commerce Bldg., Zone 1, Feb. 23, 4 story, steel bank, from Kuney Johnson Co., 235 9 Ave. N., **$2,058,000.** Est. $2,000,000. CD 2/2—ENR 2/10.

Wis., Merrill — Bd. Educ., Merrill, Feb. 19, general contract high school, from George J. Grant Constr. Co. Como Ave. and NP tracks, St. Paul, Minn., **$568,259.** CD 1/4—ENR 1/13.

Que., Drummondville — City, City Hall, Feb. 14, civic center, municipal garage and market, Hanot and Bedard Sts., from Lamothe et Fortin, 282 St. Marcel St., Ville St. Joseph. Approx. **$217,192.** Est. Approx. $300,000. CD 1/27—ENR 2/3.

CONTRACTS AWARDED

●†D. C., Wash. — Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash. D. C., General Accounting Office Bldg., G and H Sts. between Fourth and Fifth Sts. N.W., to John McShain, Inc., 17 and Spring Garden Sts., Phila., Pa., **$21,572,000.** Bids 1/26, awarded 2/26. CD 1/27—ENR 2/3, under LB.

†Kan., Fort Leavenworth — U. S. Eng., 1709 Jackson St., Omaha, Neb., Schedule I, electric substation and feeder lines. Serial No. Eng. 25-066-49-155, to Martin K. Eby Constr. Co., Inc., 610 N. Main St., Wichita, **$51,297.** CD 1/31—ENR 2/3, under LB.

†N. M., Albuquerque — U. S. Eng., P. O. Box 1538, six quonset huts for training, incl. water, sewer, electric lines, street surfacing, etc. at Sandia Base., Serial No. Eng-29-005-49-16, to J. D. Leftwich Constr. Co., Lubbock, Tex., **$232,042.** CD 1/25—ENR 1/27.

New York — Bd. Transportation, 250 Hudson St., New York, Zone 13, furnishing, erecting structural steel for Castleton Ave. Bus Garage, Castleton and Jewett Aves., Contr. mw-104-2, Richmond Boro., to Lehigh Structural Steel Co., 17 Battery Pl., New York, Zone 4, **$816,700.** Bids 1/21, CD 2/1—ENR 2/3, under LB., foundations for Castleton Ave. Bus Garage, to John Milnes Co., Inc., 2081 Richmond Terrace, St. George, **$106,400.** Bids 12/27, CD 12/13—ENR 12/16.

●N. Y., Brooklyn — Supt. School Bldgs., Design & Constr., 49 Flatbush Ave. exten., Zone 1, general contract P. S. 77, 5 Ave. between 4 and 5 Sts., Long Depot Constr. Co., 450 Seventh Ave., New York, Zone 1, **$1,810,000.** Bids 2/9, CD 2/11—ENR 2/17, under LB.

●N. Y., New York — New York City Housing Auth., 63 Park Row, Zone 7, general contract Dyckman Houses, Proj. NYC 10, in area bounded by 10 Ave., W. 204 St., Nagle Ave. and Dyckman St., Manhattan Boro, to Cauldwell-Wingate Co., 101 Park Ave., Zone 17, **$6,472,000;** plumbing and heating, ventilating to J. L. Murphy, Inc., 340 E. 44 St., Zone 17, **$889,000** and **$814,000** respectively. Grand total $8,175,000. Bids 2/9. CD 2/11—ENR 2/17, under LB.

●N. Y., New York — New York City Housing Auth., 63 Park Row, Zone 7, general contract Gun Hill Houses, Proj. NYC-9, in area bounded by Holland Ave., Gun Hill and White Plains Rds., Magenta St., Cruger Ave. and a line south of and parallel with Magenta St., Bronx Boro, to Albert A. Lutz & Peter Riss Co., 241 W. 17 St., Zone 11, **$4,201,261***** plumbing, to Fred Brutschy & Co., 228 E. 46 St., Zone 17, **$592,222***** heating and ventilating, to Heating Maintenance Corp. of New York, 220 E. 138 St. **$562,600.** Grand total $5,359,086. Bids 2/1. CD 2/3—ENR 2/10, under LB.

●†Tex., Bonham — U. S. Eng., Box 51, Tulsa, Okla., general contract 300 bed hospital, Eng. 34-066-49-36, for Veterans Admin., Vermont Ave. between H and I Sts. N.W., Wash. 25, D. C., to J. J. Fritch, 6834 Harry Hines Blvd., Dallas, **$4,237,455.** Bids 2/10. CD 2/16—ENR 2/24, under LB.

B. C., Chilliwack — Trustees School Dist. 33, Chilliwack, 2 story, and two one story bldgs., Senior High School, to A. R. Grimwood, 3770 Victory St., Burnaby, **$568,312.** Bids 2/11, awarded 2/23. CD 1/28—ENR 2/3.

COMMERCIAL BUILDINGS

BIDS ASKED

March 15

Ont., Belleville—Bell Telephone Co. of Canada, 1050 Beaver Hall Hill, Montreal, Que., 2 story, bsmnt., 76x112 ft. rein.-con., stone telephone exchange, Church and Bridge Sts. Approx. $300,000. J. F. MacNab, c/o owner, engr.

March 21

Calif., Los Angeles—Alex Schreiber & Assoc., Dime Bldg., Detroit, Mich. (selected list bidders) theatre and bowling alleys in Westchester Dist. $400,000. Arthur Foellch, 383 S. Roberston, Beverly Hills, archt. CD 12/30/48—ENR 12/30/48.

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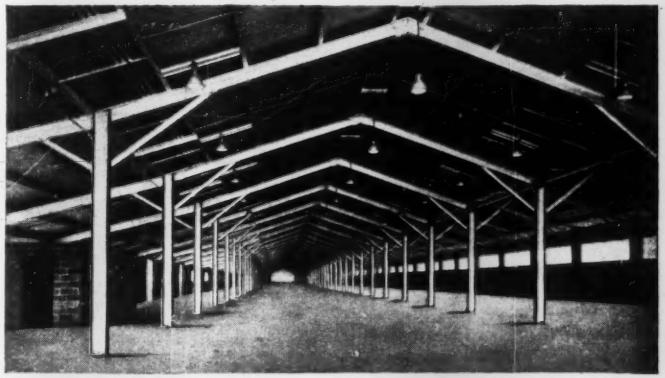

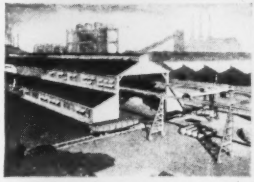

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March 22

Wis., Appleton — St. Therese Parish, c/o Maurey Lee Allen, archt., Zuelke Bldg., 2 story, bsmnt., L shaped, 32x100 ft., 32x32 ft., wing, native stone, brick, steel convent. Concrete fdn. Plans deposit $50.

March 31

Tex., Bryan—College Ave. Baptist Church Congregation, Bryan, church. **$250,000.** Norton & Mayfield, 1505 College Ave., archts. CD 7/22—ENR 7/29.

April 8

Ark., Blytheville—First Baptist Church, Blytheville, church. $350,000. McAninch & Mahnker, Exchange Bldg., Little Rock archts. CD 2/24.

SOON LETS CONTRACT

Minn., Minneapolis—Minnesota Dist. Lutheran Church, Missouri Synod, 402 Loring Medical Bldg., Minneapolis, Rev. R. Norden, soon lets contract 2 story, 96x122 ft. L-shaped student center, 11 Ave. S. E. and University Ave. $250,000. Lang & Raugland, 502 Wesley Temple Bldg., archts. CD 3/10—ENR 4/8.

Pa., Brentwood — Brenthall, Inc., 2901 Brownsville Rd., Pittsburgh, soon lets contract 2 story, 20x45 ft. part 3½ storys, 49x80 ft., brick, block store and office. $250,000. C. W. Blazard, 433 Eureka St., Pittsburgh, archt.

Tex., Austin—Southwestern Bell Telephone Co., 308 S. Akard St., Dallas, soon lets contract solid masonry, 15,000 sq. ft. Spanish Type architecture, telephone bldg. $375,000. CD 2/18—ENR 2/24.

Wis., West Allis—Wisconsin Electric Power Co., 231 W. Michigan Ave., Milwaukee, Zone 3, soon lets contract 1 story, 160x208x160x170x245 x80 ft., steel, brick electric distr. stores bldg., concrete fdn. $750,000. F. A. Luber, Jr., c/o owner, archt.

LOW BIDDERS

Wash., Bellingham—St. Joseph's Hospital, Bellingham, Feb. 24, 5 story, rein.-con. hospital addn., from General Constr. Co., 3840 Iowa St., Seattle, **$595,340.** Est. $520,000. CD 2/2—ENR 2/10.

CONTRACTS AWARDED

Ala., Birmingham—Marbury & Boriss, Massey Bldg., 90 homes, 68 St. and 6 Ave., force account, **$300,000.**

Calif., Los Angeles—Burns Constr. Co., 5670 Wilshire Blvd., 50 stucco dwellings, Remington and Terra Bella Sts., **Kemen, Oneida and Haddon Aves.** Owner builds. **$250,000.**

Calif., Los Angeles—R. S. Diller, 6307 Wilshire Blvd., 28 apartments, 5800 block, Bewcroft St. and 5600 block Kalsma, St. Owner builds. Martin Stern, Jr., 8939½ Santa Monica Blvd., archt.

Calif., Torrance—K. S. Senness, Torrance, 59 frame, stucco dwellings, to Homes of Tomorrow 1413 Hawthorne Blvd., Hawthorne, over **$250,000.** Frank W. Green, 1515 E. Chevy Chase, Glendale, archt.

Mo., St. Louis—Parish of the Epiphany of Our Lord, Rev. Charles P. Maxwell, pastor, 6598 Smiley Ave., Zone 9, 1 story, 138x145 ft., brick, steel, concrete gymnasium and recreational bldg., to The Kloster Co., 4607 Beck Ave., Zone 9. Bids 2/16. CD 2/14—ENR 2/24.

●N. Y., New York—860 Fifth Ave. Corp., 274 Madison Ave., Zone 16, 17 apartments, Fifth Ave. from 67 to 68 Sts. Owner builds. **$3,000,000.** CD 2/2—ENR 2/17.

Pa., Phila.—St. Williams R. C. Church, 6200 Rising Sun Ave., convent, to Roth Constr. Co., 2004 N. Broad St., **$250,000.** Peter F. Getz, 1634 N. 6 St., archt.

●Va., Harrisonburg—Rockingham Memorial Hospital, Harrisonburg, 5 story Rockingham Memorial Hospital addn., alterations, to Nielson Constr. Co., Harrisonburg, **$1,240,006.** Bids 2/25. CD 1/28—ENR 2/3.

Wis., Racine—Ace Realty Co., 213 6 St., 2 story, 129x157 ft., concrete, steel, brick parcel post annex, own forces. J. Mandor Matson, 610 Main St., archt. U. S. Post Office Department, lessee.

B. C., Nelson—Sisters of St. Anne., Victoria, rein.-con. infirmary and home for aged, to Maxwell Constr. Co. Ltd., 410 Seymour St., Vancouver, **$176,080.** Bids 2/11, awarded 2/23. CD 1/20—ENR 2/3.

●Ont., Toronto—R. R. Dennis, 2944 Yonge St., apartment, Yonge St. Owner builds. **$1,000,000.**

INDUSTRIAL BUILDINGS

BIDS ASKED

March 15

Wis., Milwaukee—FACTORY—Cutler-Hammer Co., 315 N. 12 St., Zone 2, 3 story L-shaped, 240x102x61 ft. tool making-heat treating bldg., part 1 story. Extended date. Eschweiler & Eschweiler, 720 E. Mason St., archts. CD 2/24—ENR 3/3.

March 18

Minn., Brainerd—WAREHOUSE, etc.—Crow Wing Electric Co-operative, Brainerd, 1 and 2 story, warehouse, office, garage, $100,000. Plans deposit $15. Long & Thorshov, 400 Metropolitan Life Bldg., Minneapolis, archts. CD 6/18—ENR 7/3.

March 23

Mo., Palmyra—POWER GENERATING—Northeast Missouri Electric Power Co-operative, Palmyra, Sect. 2, bldg., Sect. 3, electrical work, Sect. 4, foundations and piling, Sect. 5, wells, Stanley Eng. Co., Hershey Bldg., Muscatine, Ia., engr. CD 12/13—ENR 12/23.

SOON LETS CONTRACT

Ill., Chicago—FACTORY—S. & C. Electric Co., 4435 N. Ravenswood Ave., soon lets contract brick, steel factory, 6541 Ridge Ave. $145,000. Engineering Systems, 221 N. LaSalle St., engr. CD 2/11—ENR 2/24.

O., Akron—PLANT—H. F. Goodrich, 500 S. Main St., soon lets contract 4 story belt plant. Over $250,000. Austin Co., 16112 Euclid Ave., Cleveland, engr. CD 10/15—ENR 10/21.

S. C., Columbia—SALES and SERVICE—Oliver & Dickson, archts., 1226 Pickens St., soon lets contract sales and service bldg. for Oliver Motor Co., 2009 Main St.

Tex., Dallas—AUTO—Grand Buick Co., 2108 Cedar Springs Rd., soon lets contract steel auto bldg., services, display, concrete slab fdn., $200,000. Smith & Mills, Mercantile Bank Bldg., archt.

Wis., Milwaukee — PRINTING PLANT — Wetzel Bros., 444 N. Broadway, Zone 2, soon lets contract 1 story, bsmnt., 100x197 ft. printing plant. Eschweiler & Eschweiler, 720 E. Mason St., Zone 2, archts. CD 2/15—ENR 2/17.

CONTRACTS AWARDED

Calif., Los Angeles—ENGINEERING—Consolidated Western Steel Corp., 5700 S. Eastern Ave., 2 story, 8,000 sq. ft. cement block engineering bldg., to Louis C. Dunn, 417 S. Hill St., Los Angeles, **$77,620.** G. B. Kaufman & S. E. Stanton, 627 S. Carondelet St., archts.

Calif., Los Angeles—SHOP, etc.—Southern Counties Gas Co., 810 S. Flower St., reln.-con. shop and office bldgs., to Stanton-Reed Co., 816 W. 5 St., **$279,269.** D. R. Warren, 500 S. Figueroa St., engr.

Calif., Los Angeles—PLANT—Zandt Carpet Co., 5723 Sunset Blvd., 1 story, rein.-con., brick dry cleaning plant, to Myers Brothers 3407 San Fernando Blvd., **$250,000.** CD 12/15—ENR 12/23.

Ga., Atlanta—WAREHOUSE—J. M. Tull Metal & Supply Co., 265 Fuller St. N. W., 1 story, 295x258 ft., concrete, equip. and industrial supplies storage warehouse, to T. C. Wesley & Co., 285 Hunnicutt St. N. W., Est. **$250,000.** Stevens & Wilkinson, 157 Luckie St., Atlanta, archts.

Ill., Chicago—WAREHOUSE—3201 S. Kostner Bldg. Corp., c/o sidney Minchen, archt., 127 N. Dearborn St., 1 story, brick, concrete warehouse, to B. Amoroso & Sons, 933 S. Hoyne Ave. Est. **$200,000.**

Ill., Chicago—FACTORY—R. Krasberg & Son, 2501 Homer St., 1 story, 25x125 ft., brick factory addn., to City-Wide Builders, 3609 Grand Ave. Engineering Systems, 221 N. LaSalle St., engrs.

Ill., Chicago—FACTORY—Meinhardt Diamond Tool Co., 2800 N. Milwaukee Ave., 1 story, brick factory addn., to Campbell, Lawrie, Lautermilch, 400 W. Madison St. Est. **$68,000.** A. J. Schneemann, 2103 W. Warner Ave. archt.

Ill., Cicero—FACTORY—Chicago Extruded Metals Co., 1642 54 Ave., 1 story, brick, steel factory, to Campbell, Lawrie, Laudermilch, 400 W. Madison St., Chicago, **$85,000.** Awarded 2/15.

Minn., Willmar — WAREHOUSE, etc. — Kandiyohi Co-operative Electric Power Assn., O. N. Gravgaard, pres., general contract 1 story, 98x130 ft. warehouse, office, garage, to Kalsted Constr. Co., 480 Lyndale Ave. So., Minneapolis, **$128,997.** Bids 2/12. CD 2/7—ENR 2/10.

Pa., Pittsburgh—GARAGE—Jordan Pontiac Co., Brownsville Rd., 1 story, brick, block, steel garage, to The Fraser Co., 95 S. 16 St. Est. **$100,000.** CD 11/11—ENR 12/6.

Tenn., Nashville — WAREHOUSE, etc. — Brad Electric Co., 109 11 Ave., 4 story, 33,000 sq. ft. warehouse 11 Ave. and Demonbreun St. Viaduct, to J. B. Regen, 127 5 Ave. N. **$200,000.** CD 9/22—ENR 9/30, under CA.

Tex., Borger—REFINERY—Phillips Petroleum Co., Borger, reconstructing refinery unit, own forces. Approx. **$100,000.** CD 10/4/46—ENR 9/17/46.

Tex., Dayton—PLANT—Dayton Div. of American Rice Growers, Co-operative, Assn., Dayton, rice drier plant, to Benchley Constr. Co., 2500 Washington St., Houston. Approx. **$150,000.**

Tex., Houston—PLANT—Kaplan & McAughan, 1315 Bell Ave., plant, to Hubbard Constr. Co., 1507 Delano St., **$92,000.** CD 2/16.

Tex., McGregor—PLANT—Geigy Co., McGregor, remodeling Old Bluebonnet Ordnance Plant for insecticide (DDT) plant, own forces. **$90,000.**

●Tex., Port Arthur—TOPPING STILLS—Gulf Oil Corp., Port Arthur, 3 atmospheric-vacuum topping stills, Purchase and Hire. **$5,500,000.** Est $8,000,000. CD 12/27—ENR 1/20.

Wash., Dishman—KILN and DRIER—Washington Brick & Lime Co., Dishman, design and construction 32x417 ft. kiln and drier bldg., 30x150 ft. cooling and unloading dock, 60x120 ft. stock shed for brick plant, to Allied Eng. Co., 4150 E. 56 St., Cleveland, O. Est. **$300,000.**

B. C., Quinsam Lake (Postal Dist. Campbell River, Vancouver Island)—MINE DEVELOPMENT—Privateer Mines Ltd., Quinsam Lake, development iron ore deposits, to Argonaut Co. Ltd., Quinsam Lake.) Est. **$100,000.**

Ont., Galetta (Twp. Fitzroy)—MINE DEVELOPMENT—Continental Lead Mines Ltd., 330 Bay St., Toronto, mine development, day labor, **$50,000.**

UNCLASSIFIED

BIDS ASKED

March 14

†N. Y., Freeport — GUYS, DEADMEN, etc — Pub. Wks. Office, Third Naval Dist., Hudson Terminal Bldg., 50 Church St., **New York**, Zone 7, installing, relocating guys, **deadmen**, etc., for 3 antenna masts, U. S. Naval Reserve Training Center, Spec. 21,828.

March 15

Kansas — RURAL DISTRIBUTION LINES —N. C. K. Electric Co-operative, Belleville, labor only, 210.73 mi. rural distr. lines, Cloud, Republic and Jewell Counties, **$60,000.** Raymond H. Reed & Co., Columbus, Neb., engrs.

March 22

Wis., Port Edwards — BATHHOUSE, etc.— Village, 2 story, part bsmnt, 63x90 ft., stone bathhouse, 50x150 ft. concrete pool, 3 to 12 ft. deep, 20x30 ft., concrete wading pool. **$135,000.** Plans deposit $10. Donn Hougen, Wood Block, Wisconsin Rapids, archt. CD 12/31—ENR 1/20.

March 23

North Dakota — RURAL DISTRIBUTION LINES — North Central Electric Co-operative, Bottineau, labor and material, **Sect. E-1**, 288.01 mi. rural distr. lines Bottineau and Renville Counties; Sect. E-3, 251 mi. rural distr. lines, Bottineau, Pierce and Rollette Counties $600,000. Ulteig Eng. Corp., 1114½ Front St., Fargo, engrs.

March 24

Mass., Charlestown — PIER — Port of Boston Auth., Commonwealth Pier No. 5, South Boston, superstructure pier Hoosac No. 1, Massachusetts State Proj. 1, Contr. 8. Plans deposit $100.

LOW BIDDERS

†D. C., Wash. — ELECTRIC DISTRIBUTION SYSTEM — U. S. Eng., First and Douglas St., N.W., Zone 25, Feb. 24, underground electrical distr. sys., U. S. Soldiers Home, Serial No. Eng. 49-080-49-108, from Frank S. Bowen, 4908 Anapolis Rd., Bladensburg, Md., **$159,900.** CD 2/11—ENR 2/17.

N. Y., Brooklyn — RAILROAD EQUIPMENT RELOCATION — Bd. Transportation, 250 Hudson St., New York, Zone 13, Feb. 18, relocation railroad equip., cables and associated work on Williamsburg Bridge and its approaches, BMT Div., Cont. ML-102, from Emerson-Garden Electric Co., Inc., and L. K. Comstock & Co. Inc., 155 E. 44 St., New York, Zone 17, **$237,729.** CD 2/10.

North Carolina — RURAL DISTRIBUTION LINES — French Broad Electric Membership Corp., Marshall, Feb. 15, 194.6 mi. rural distr. lines, Sect. 2, from M. B. Haynes Electric Co., 46 Woodfin St., Asheville, **$116,018;** 195.1 mi. rural distr. lines, Sect. 1, Mitchell and Yancey Counties, from Ivy H. Smith, Greensboro, **$115,460.** CD 6/20/46—ENR 7/11/46.

Texas — RURAL DISTRIBUTION LINES — Robertson Electric Co-operative, Inc., Franklin, Jan. 27, rural distr. lines, Robertson Co., from W. J. Thomas & Co., Franklin, **$65,500.** CD 1/14—ENR 1/20.

CONTRACTS AWARDED

Calif., Los Angeles — ELECTROLIER LIGHTING SYSTEM—City, Bd. P. Wks., 153 City Hall, electrolier lighting sys. in Manchester Ave., Central to Vernon Ave., to Schurr & Finlay, Inc., 6800 West Blvd., **$52,970.** Bids 2/9 awarded 2/11.

New York—TRACK and CONTACT RAILS —Bd. Transportation, 250 Hudson St., New York, Zone 13, track and contract rails at Queens Plaza Station in connection with changes of operation, BMT to Astoria and IRT to Flushing, Queens Co., to Horn Constr Co., Inc., 291 Broadway, New York, Zone 7, **$154,300.**

●N. Y., New York—ELECTRICAL EQUIPMENT—Bd. Transportation, 250 Hudson St., Zone 13, electrical equip. for IRT 50 St. power house, to Emerson-Garden Electric Co., Inc. & L. K. Comstock & Co., Inc., 155 E. 44 St., Zone 17, **$1,260,000.** Bids 12/17. CD 12/2—ENR 12/9.

†Tex., Corpus Christi—STEAM LINES—Naval Air Station, Bureau Yards & Docks, Corpus Christi, replacing steam lines between Central Power Plant and Manhole 41 at Naval Air Station, Spec. 2197 to South Texas Specialty Contractor, 4023 Agnes St., **$66,804.**

Tex., Dallas—ELECTRIC CONDUIT LINE —Dallas Power & Light Co., Dallas Power & Light Bldg., underground electric conduit line on Cadiz St., Purchase and Hire. Approx. **$50,000.** CD 2/3—ENR 2/17, under Industrial Buildings.

British Columbia—RIGHT-OF-WAY—B. C. Power Comm., Victoria, clearing sections, transmission line right-of-way, Vernon to Kettle River Crossing, to George S. Finlaison, Vernon, **$70,750.** Bids 1/22, awarded 1/24. CD 2/15.

B. C., Oak Bay—**PARK—Municipality**, developing race track into park, **own** forces, **$50,000.** A. S. G. Musgrave, Oak Bay, engr.

CONSTRUCTION REPORTS—Second Section

Third Section Construction Reports on page 69

WATER SUPPLY

BIDS ASKED

March

O., Findlay—City, O. C. Gohlke, waterworks supt., WW imprvs., pump. station, dam inlet structure, piping and roadway. Jones, Henry & Schoonmaker, Security Bldg., Toledo, engrs. CD 10/17/47—ENR 10/30/47.

March 14

N. Y., New York—Comr. Water Supply Gas & Electricity, Municipal Bldg., Zone 7, watermains, appurtenances Bushwick and Ditmas Aves., Baltic, Douglass and 98 Sts., Linden Blvd., Rockaway Parkway and grounds of Gowanus Houses, Brooklyn Boro. Plans deposit $1.

March 17

Ind., Jasper—Kentucky Pipe Line Co., Inc., West Heights Water Co., Inc., and Calumet Road Water Lines, Inc., City Hall, 11,000 ft. 6 and 8 in. c. i. watermains, valves and hydrants. $100,000. Plans deposit $25., C. J. Heim Jasper, engr.

March 18

Mass., Pittsfield—City Comrs., P. Wks., City Hall, 8 and 20 in. c. i. water pipe, Cleveland Brook Reservoir, to First and Burbank Sts., Contr. 5. Over $28,000. Plans deposit $10. Metcalf & Eddy, 1300 Statler Bldg., Boston engrs. CD 12/15/44—ENR 12/28/44.

March 21

Ore., Corvallis—City, City Hall, 4 m. g. p. d. capacity water treatment plant, 2 mi. south of here. Cornell, Howland, Hayes & Merryfield, Rennie Bldg., engrs. CD 3/17/48—ENR 4/1/48.

March 24

Mass., Boston—Commonwealth of Mass., Metropolitan Dist. Comm., 20 Somerset St., Contr. 168, Sect. 4, Chicopee Valley Aqueduct incl. Nash Hill Reservoir, Ludlow. Plans deposit $10. Karl R. Kennison, ch. engr. CD 5/12/44—ENR 6/1/44.

N. Y., Liberty—Town Bd. at office Whitaker Wells, clk., Sherwood Bldg., WW sys. for White Sulphur Springs Water Dist., Contr. 1, wells, appurtenances; Contr. 2, well housing, etc.; Contr. 3, pipe, pipe fittings; check valves, hydrants, etc.; Contr. 4, clearing, grubbing, excavation and foundations and control manhole for steel tank reservoir. Contr. 5, furnishing, erecting steel tank reservoir. Plans deposit $4. Nial Sherwood, Chestnut St., consult. engr.

Tex., Munday—Knox Co. Drainage Dist. 1, City Hall, drainage imprvs., incl. 114,500 yd. excav. for drainage ditches, 1,010 ft. 43x27 in. corrugated metal pipe culverts, 15 concrete retards, etc. $100,000. Plans deposit $15. Joe E. Ward, 545 Nacol Bldg., Wichita Falls, engr.

March 25

Oklahoma—U. S. Eng., P. O. Box 61, Tulsa, Zone 2, replacing elevated water storage tanks at Fort Supply Dam, and Great Salt Plains Dam, Inv. No. Eng. 34-066-49-77.

March 30

Pa., Embreeville—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, water dist. sys. at Embreeville State Hospital. Plans deposit $7.50. John H. Wickersham, 14 S. Duke St., Lancaster, engr. CD 2/9/48—ENR 2/19/48.

LOW BIDDERS

La., Marrero—Jefferson Parish Waterworks Dist. 2, Feb. 17, raw water intake structure and pump. station, Delgado Bros., 536 Focus St., New Orleans, **$64,241**. CD 2/2—ENR 2/10.

O., Findlay—City, O. C. Gohlke, WW supt., 1,350,000,000 gal. water storage reservoir, levee, incl. riprap roadways, conduits and related structures, from J. C. O'Connor & Sons, Inc., 2104 Miner St., Fort Wayne, Ind., **$636,567**. Est. $820,500. CD 10/17/47—ENR 10/30/47.

Tex., Hitchcock—Galveston County Water Control & Imprvt. Dist. 5, Hitchcock, Feb. 24, waterline extens. Unit A, from L. H. McIntire, Texas City, **$44,404**. CD 2/1—ENR 2/10.

Tex., Lubbock—City, City Hall, Feb. 24, 59,000 lin. ft. 10- to 16-in. distr. lines, appurtenances, from Cullum & Hodgson, 1005½ 13 St., **$284,682**; 15,080 lin. ft. 16- to 30-in. distr. main trunks, appurtenances, from City Constr. Co., 2411 Inwood Rd., Dallas, **$217,222**. CD 2/16.

CONTRACTS AWARDED

Ill., Barrington—Town, Town Hall, pumping installation, well incl. electric motor and fittings, to American Well Work, Aurora, **$43,600**. Awarded 2/24. Consoer, Townsend & Assoc., 351 E. Ohio St., Chicago, Zone 11, engrs.

O., Versailles—Bd. Pub. Affairs, Versailles, water softener plant, to Dodds & Johnson, Springfield Pike, Fairfield, Dayton, Est. **$78,506**. Awarded 2/12.

Tex., Houston—C. P. Lumpkin & Assoc., 3120 Rice Blvd., waterlines, facilities, own forces. **$40,000**.

Tex., Sugarland—Belknap Realty Co., Sugarland, water, sanitary sewer lines, grading, drainage, streets, own forces. Approx. **$75,000**.

Wis., Fond du Lac—City, City Hall, WW, pump. station, watermains, to Gray Robinson, Manitowoc, **$36,911**. Bids 2/19, awarded 2/21. CD 1/4—ENR 2/12.

Ont., Toronto—Municipality, 133 ft. water tower, Owner builds. **$27,500**. Murray Stewart, city engr.

Ont., Woodstock—Municipality, water service to building proj., N. Huron St. and service mains to 88 dwellings, to Dumfries Constr. Co., Ltd., Galt, **$45,000**. CD 8/25/44—ENR 9/7/44.

Que., Montreal—Municipality, low levee station pump. unit, to Dominion Eng. Wks. Ltd., 7 First Ave., Lachine, **$59,162**. st. A. Gibeau, city engr.

Que., Montreal—Municipality, supplying installing, 3 pump units, to John Inglis Co. Ltd., 1010 W. St. Catherine St., **$183,660**. H. A. Gibeau, city engr.

SEWERS, WASTE DISPOSAL

BIDS ASKED

March 15

Ga., Valdosta—City, Proj. 3, 61,000 lin. ft. 6- to 18-in. vitr. clay gravity sanitary sewer lines, 6,000 lin. ft. 6 and 8 in. c.i. pressure sewer lines and 2 sewage lift stations. Plans deposit $20. Smith & Gillespie, P. O. Box 1048, Jacksonville, Fla., engrs.

March 16

Ark., Forrest City—City, imprv. sewerage sys. incl. sewage treatment plant with auxiliaries appurtenances and sewer connections, extens. $300,000. Extended date. Marion L. Crist & Assoc., Union Life Bldg., Little Rock, engrs. CD 1/19—ENR 2/3.

March 17

Tex., San Antonio—City, James Knight, Street Comr., 1st sect. of East Side Outfall Sewer Main, $200,000. Bid date changed. Beavers & Lodal, 1508 Transit Tower, engrs. CD 3/2—ENR 3/10; 15,000 CFM air compressor for sewage treatment plant, H. R. F. Helland, Frost Bank Bldg., engr.

March 18

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, sanitary and storm sewers, Avenue V, Avenue W and Avenue X, Nostrand Ave., Batchelder and Bragg Sts.

March 21

Calif., San Jose—City, City Hall, sanitary and storm sewers, Unit 2. Over $50,000. Plans deposit $25. H. J. Flanney, city engr. CD 10/24/45—ENR 11/15/45.

N. Y., Freeport—Bd. Sewer Comrs., Municipal Bldg., 46 N. Ocean Ave., 3,900 lin. ft. 8 in. pipes with 5 in. house laterals to curb, manholes, appurtenances, Lateral Sewer Dist. 48; approx. 11,300 lin. ft. 8 in. pipes, with 5 in. house laterals to curb, manholes, appurtenances, Lateral Sewer Dist. 11. Plans deposit $25 each. Ballwin & Cornelius Co., Inc., 117 W. Sunrise Hy., consult. engrs. CD 3/25/46—ENR 4/4/46.

Tex., San Antonio — City, James Knight, Street Comr., 1st. sect. East Side outfall sewer main. $200,000. Beavers & Lodal, 1508 Transit Tower, engrs. CD 2/4.

Wis., Dane — Village, sewage treatment plant. Plans deposit $20. General Eng. Co., Portage, engr.

March 22

Ill., Round Lake — Round Lake Sanitary Dist., sewerage sys., incl. 11 principal trunk lines, sewage treatment plant, Round Lake, Round Lake Beach and Round Lake Park. $300,000. Plans deposit $25. H. P. Thacker Eng. Office, 226 Washington St., Waukegan, engr. CD 2/27—ENR 12/25/47.

La., Ponchatoula — Town, Town Hall, 35,000 lin. ft. 8 in. sewer extens., incl. manholes, house connections, etc. Plans deposit $3.50. J. M. Fourmy, Hammond, engr. CD 11/18—ENR 12/2.

March 23

●Ill., Belleville—City, Carl Siegel, clk., sewage treatment plant, addns., imprvs., incl. auxiliaries, appurtenances. $1,200,000. Bids 2-21 rejected. Russell & Axon, 408 Olive St., St. Louis 2, Mo., engrs.

Tex., Irving — City, Hans Smith, mayor, sanitary sewer pipe extens., lift station, treatment plant. $175,000. Plans deposit $25. Koch & Fowler, 701 Gr. Natl. Life Bldg., engrs. CD 11/18—ENR 12/9.

March 24

Wash., Spokane—City, City Hall, Sect. D, Division St. sect. of sewer proj. $129,735. Plans deposit $10. C. E. Ayres, city engr. CD 2/14—ENR 2/17, under LB.

April 1

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, relief sewers in 17 Ave. Sect. 2, from Bath Ave. to 77 St.

LOW BIDDERS

Tex., Hitchcock—Galveston Co. Water Control & Imprvt. Dist. 5, Hitchcock, Feb. 24, sewer line extens., Unit B, from L. H. McIntire, Texas City, **$139,315**. CD 2/1—ENR 2/10.

CONTRACTS AWARDED

●N. Y., Syracuse — Clerk Onondaga Co., County Courthouse, Ley Creek Sewage Treatment Plant, to Candler & Bass, Inc., 215 Birmingham Theatre Bldg., Birmingham, Mich., **$1,685,993**. Bids 2/8. CD 2/15—ENR 2/17, under LB.

Tex., Houston—Bond & Gregg, 406 Oakley St., sanitary sewer and c.i. waterlines, Purchase and Hire. Approx. **$75,000**.

Tex., Houston—C. P. Lumpkin & Assoc., 3120 Rice Blvd., sanitary sewers, **$70,000**; storm sewers, **$50,000**, own forces. CD 2/28.

BRIDGES

BIDS ASKED

March 16

Md., Baltimore—Mayor & City Council, City Hall, Waterview Ave. Underpass and Interchange, through (Limited Access) Hy., Baltimore-Washington, Annapolis Ave. and Waterview Ave., Baltimore, F. A. P. Md U1465 (5). Plans deposit $25. J. H. MacKay, city hy. engr.

March 24

Massachusetts—Mystic River Bridge Auth., E. A. Brest, chn., 6 Beacon St., Boston, paving superstructure, Mystic River Bridge, Contrs. S, 8A and 8B. Plans deposit $10. C. A. Maguire & Assoc., 46 Cornhill Boston Zone 8, and J. E. Greiner Co., 1201 St. Paul St., Baltimore, Zone 2, Md., consult. engrs. CD 3/10/47—ENR 3/20/47.

LOW BIDDERS

●Pennsylvania—Pennsylvania Turnpike Comm., 11 N. 4 St., Harrisburg, Feb. 28, 0.874 mi. bridge, carrying eastern exten. of Pennsylvania Turnpike over Susquehanna River, from Marsh Run, York Co. to Steelton, Dauphin Co., from Booth & Flinn Co., 1924 Forbes St., Pittsburgh, **$4,777,500**. Est. $4,000,000. Parsons, Brinckerhoff, Hall & Macdonald, 51 Broadway, New York, N. Y., engrs. CD 2/8—ENR 2/19.

CONTRACTS AWARDED

Miss., Hattiesburg—Forrest Co., Hattiesburg, 0.624 mi. grading, drainage, culverts, bridge across Leaf River, road between Hattiesburg and Petal, to Cook Constr. Co., Standard Life Bldg., Jackson **$310,776**. Bids 2/24. CD 2/11—ENR 2/17.

Tex., Bellville—Austin Co., Courthouse, Bellville, bridge constr. and imprvs., Precincts 1 and 2, **$75,000**; vehicle bridge constr. and imprvs., Precincts 3 and 4, **$90,000**, force account. CD 5/12—ENR 5/27.

●Tex., Corpus Christi—Nueces Co., Courthouse, Causeway Proj. between Corpus Christi and Padre Island, to Bauer & Smith Dredging Co., Fort Lavaca, **$1,248,608**. Est. $1,700,000. Bids 2/25. CD 3/1—ENR 3/3, under LB.

Wisconsin and Minnesota—State Hy. Comm., Madison, Wis. and Comr. Hys. State of Minnesota, St. Paul, Minn. at office Wisconsin State Hy. Comm. Madison Wis., Hudson Interstate Bridge, approaches, U. S. Hy. 12, Contr. 1, 0.465 mi. Proj. FAP 106-3 (6), and FI 06-5 (7) St. Croix Co. Wis. and Washington Co., Minn., to Industrial Contg. Co., 3050 Fourth Ave. S., Minneapolis, Minn., **$801,305**. Bids 2/25. CD 3/1—ENR 3/3 under LB.

Que., Drummondville—Canadian Pacific R.R., J. P. Armstrong, ch. engr., Windsor Station, Montreal, Zone 3, bridge over Cockburn St., to B. Robidas, 164 DuMoulin St. Est. **$50,000**.

STREETS AND ROADS

BIDS ASKED

March 15

Minn., Fairmont—City, S. Stewart, clk., City Hall, grading, wood block pavement removal, curb, gutter, c. conc. paving roads. $50,000. J. E. Grund, city engr. CD 4/10/44—ENR 4/20/44.

N. Y., New York — President Bronx Boro, Bronx County Bldg., 851 Grand Concourse, Zone 51, c. conc.-sheet asph. Brady Ave, from White Plains Rd. to Crosby Ave.; c. conc.-asph. blocks Brady Ave. from Cruger to Barnes Aves.; c. conc.-sheet asph. Buchanan Pl. from Aqueduct to Grand Aves.; c. conc.-asph. blocks, etc. Buchanan Pl. from Grand to Jerome Aves.; setting curb, laying sidewalks, etc. Grand Ave. from Edenwald to Bussing Aves.; c. conc.-asph. blocks, etc. Shakespeare Ave. from Jerome Ave. to W. 168 St.; c. conc.-sheet asph., etc. Tinpson Pl. from Avenue St. John to Bruckner Blvd.; setting curb, laying sidewalks, and crosswalks, culverts, approaches and guard rails, etc. W. 230 St. from Johnson to Irwin Aves.; c. conc.-sheet asph., repaving, reconstructing mails in Rabe Heath Plaza from Ruppert Pl. to Gerard Ave. CD 10/11/45—ENR 11/1/45.

March 18

N. Y., Brooklyn—President Brooklyn Boro, Boro Hall, Zone 2, grading, Avenue Y, Avenue X, Nostrand Ave., Batchelder and Bragg Sts.

March 31

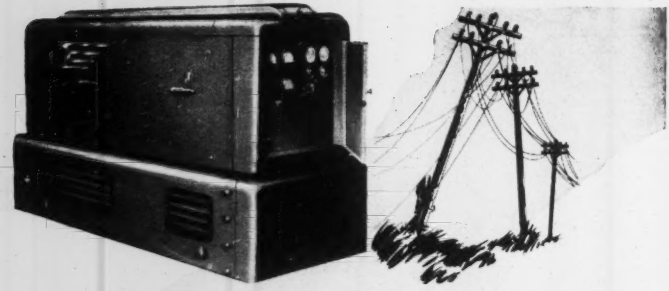
Tex., Alvin—City, 6 and 8 in. gravel base and asph. topping. $100,000. Garrett Eng. Co., 1806 Milam St., Houston, engrs. CD 12/16/46—ENR 12/26/46.

Va., Lynchburg—State Hospital Bd. of Commonwealth of Virginia, Dr. Joseph E. Barrett, comr., 9 N. 12 St., Richmond, let grading, roads, walks and storm sewers at Lynchburg State Colony. Plans deposit $10. Pendleton S. Clark, 612 Rise Bldg., archt.

LOW BIDDERS

Okla., Tulsa—City, received no bids Feb. 15, widening Peoria Ave. **$153,000**. W. R. Wooten, city engr.

●Pennsylvania—Pennsylvania Turnpike Comm., 11 N. 4 St., Harrisburg, Feb. 28, construction, drainage, structures and paving 4.853 mi. Sect. 21A-2 of the Philadelphia Exten., Pennsylvania Turnpike from point 150 ft. east of L. R. 21011 in Middlesex Twp. to point 100 ft. west of Twp. Rd. 566, Silver Spring Twp., Cumberland Co., from J. Robert Baisley, Inc., Pottsville, **$1,934,237**. CD 2/11—ENR 2/17.



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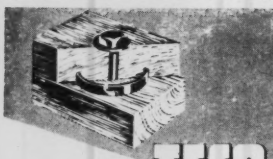

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Scranton, Pa. Dept. E, U. S. A.

Tex., Lubbock—City, W. H. Rodgers, mayor, Feb. 24, street imprvs., 58,619 subgrade preparation, 116,413 lin. ft. concrete curb and gutters, 100,130 sq. yd. paving and caliche base and asph., from Holland Page, P. O. Box 1181, Austin, **$150,565.** Est. $225,000. CD 2/9—ENR 2/17.

●**Wisconsin**—State Hy. Comn., Madison, Mar 1, c. conc. 3.131 mi. Spring Green-Arena Rd U. S. Hy. 14, Contr. 1, Proj. F 014-1 (20 and F 014-1 (28), Sauk and Iowa Counties, from Lampert & Lampert, Inc., Oshkosh, **$181,278***** c. conc. 8.777 mi. Pittsville-Klondike Rd., S. T Hy. 13, Contr. 1, Proj. F 94-4 (16), Wood Co. and c. conc. 9.684 mi. Darlington-North Co Line Rd., S. T. Hy. 23, Contr. 1, Proj. S 0360 (8), Lafayette Co., from Bushman Constr. Co. 4638 Mill Creek Parkway, Kansas City, Mo., **$363,283** and **$336,003** respectively***c. conc 5.776 mi. Readstown-East County Line Rd., U. S. Hy. 14 and S. T. Hy. 131, Contr. 1, Proj. F 014-1 (30), Vernon Co., from Joseph D. Bonness, Inc., 1409 N. 27 St., Milwaukee, **$282,550***** c. conc. and bit. 12.296 mi. Beaver Dam-Waupun Rd., U. S. Hy. 151, Contr. 1, Proj. T 017-2 (3), Dodge Co., from Rock Road Constr Co., 5915 N. Rogers St., Chicago, Ill., **$547,248** ***bit. 10.25 mi. Hales Corners-Capitol Dr. Rd., U. S. Hy. 45, Contr. 1, Proj. T 058-1 (5), Milwaukee Co., from J. P. Humphries, Inc., 1226 W. Wisconsin St., Milwaukee, **$347,370.** Cancelled bids to have been opened Mar. 1, bit 12.201 mi. Beloit-East Co. Line Rd. S. T. Hy 15, Proj. T 015 (1), Rock Co., will re-advertise CD 2/11—ENR 2/17 and CD 2/16—ENR 2/24.

CONTRACTS AWARDED

Ia., Marshalltown—City, street imprvs., to Bill Curphy, Inc., Insurance Exchange Bldg., Des Moines, **$108,000.** Bids 2/14.

Ia., West Bend—City, City Hall, paving, to Gillotti Constr. Co., 917 Bell Ave., Des Moines, Zone 15, **$87,000.** Bids 2/8. L. L Schoel & Assoc., Spencer, engrs.

Kansas—State Hy. Dpt., Scott City, grading 11.487 mi. 96-86 F 387 (7) Pt. I, Scott Co., to Andrew E. Larson, Garden City, **$101,077.** CD 2/3—ENR 2/10.

La., New Orleans—City, City Hall street paving, subsurf., drainage, Euphrosine St., to R. P. Farnsworth & Co., 1515 S. Salcedo St., **$50,739.** Awarded 2/25.

Tex., Boerne—Kendalle Co. c/o W. H. Whitworth, comr. Precinct 4, Boerne, road surfac. reconstructing, drainage, imprvs., force ac count. **$75,000.**

Tex., Houston—C. P. Lumpkin & Assoc. 3120 Rice Blvd., streets and grading, own forces. **$70,000.**

Tex., Olton—Lamb Co., Courthouse, farm-to market road constr., Precincts 3 and 4, **$96,000,** Purchase and Hire; Precinct 5, **$67,000;** Precinct 6, **$53,000,** force account. Grand total $216,000. Garrett Eng. Co., 1806 Milan St., Houston, engr.

Tex., San Angelo—Tom Green Co., c/o Judge Courthouse, road imprvs., surfac., grading drainage, Precinct 1, **$110,000;** surfac., drainage, Precinct 3, **$88,000,** force account. CD 1/16/46—ENR 2/7/46.

Tex., Seminole—Gaines Co., Seminole, surfac., grading, drainage farm-to-market roads force account, **$90,000.** CD 12/19/47—ENR 1/8/48.

North West Territories—Dominion Govt. Dpt. Mines & Resources, Ottawa, Ont., road construction, Yellowknife to Hay River, to Bond Constr. Co. Ltd., Box 398, Edmonton Alta., **$250,000.**

EARTHWORK, WATERWAYS

BIDS ASKED

March 16

Quebec — J. M. Somerville, secy. Dpt. P Wks., Hunter Bldg., Ottawa, Ont., breakwater and slip, Grande Entry. Approx. $52,000. Plans deposit $20. R. Hlaa, c/o owner, engr.

March 17

†**Arizona-Nevada-California** — Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., furnishing, del 2 oil pressure actuator-type governors for 115,000 hp. hydraulic turbines for Boulder Canyon Proj., Spec. 2571. Michale W. Strauss comr.

†**Indiana**—U. S. Eng., 222 N. Bank Dr., Chicago, Ill., dredging 138,000 cu. yd. Indiana Harbor, Indiana Harbor Canal, Calumet River Branch, $131,000.

†**N. Y., Brooklyn**—Pub. Wks. Officer, New York Naval Shipyard, Zone 1, repairing and/or replacement damaged portions wood pile and timber fender sys. of pier and seawall, Spec. 21628.

March 18

†**Colorado** — Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, completion Granby Pump Canal, Station 111 plus 00 to Station 158 plus 70, Colorado-Big Thompson Proj. about 12 mi. north of Granby, Spec. 2554. Extended date. L. N McClellan, ch. engr. CD 2/7—ENR 2/17.

About March 21

†**Missouri** — U. S. Eng., 826 U. S. Court House and Custom House, 1114 Market St., St Louis, Zone 1, levees, Perry Co. Levee Dists. 1, 2 and 3, Proj. Item II-A, Perry Co., involving 420,000 cu. yd. levee embankment, 44.5 acres seeding, mulching, 160 cu. yd. tamped backfill, one 18-in. sluice gate, operating mechanism, etc., west bank of Mississippi River, vicinity Claryville, 109 mi. above mouth of Ohio River.

March 21

Miss., Greenwood—Ablaca Drainage Dist. c/o N. C. Brewer, Jr., Greenwood, levee excav.

March 22

†California — U. S. Eng., Wright Bldg., Ownes Dam consisting of earthfilled dam, auxiliary earthfilled dam, concrete outlet structures, etc., about 18 mi. east of Merced.

†Michigan—U. S. Eng., 609 Federal Bldg., Detroit, Zone 26, dredging channel from mouth of Saginaw River to natural deep water in Saginaw Bay, Bay Co.

†Oregon—U. S. Eng., 19 E. Poplar St., Walla Walla, Wash., design, mfg., del. two 4,500 hp. hydraulic turbines, for station service units at McNary Dam power house, FAB McNary, net heads to range from 62 to 92 ft., Umatilla Co.

†Washington—Bureau Reclamation, Dpt. Interior, Bldg 1-A, Denver, Federal Denver, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, 2 motor-operated vacuum pumps with regulating valve, seal water piping with adapters, suitable anchor bolts; 2 motor operated, reciprocating air compressors with air filter, silencer, automatic start-stop control, etc, 2 oil accumulators and valve brackets, etc., for Grand Coulee Pumping Plant, Columbia Basin Proj., Spec. 2576.

†Washington — U. S. Eng., 19 E. Poplar St., Walla Walla, design, fabrication and delivery 1 metal enclosed power center and 2 metal-enclosed weather-proof control stands for McNary Dam, Serial No. Eng-45-164-49-32. Extended date. CD 2/21—ENR 3/3.

March 23

†Colo., Fowler—U. S. Eng., P. O. Box 1538, Albuquerque, N. M., Arkansas River Channel Imprvt., Serial No. Eng.-29-005-46-63.

†Montana—Bureau Reclamation, Dpt. Interior, Old High School Bldg., N. Warren St., Helena, earthwork, structures, relocation county roads approaches to Canyon Ferry Dam, Canyon Ferry Unit, Missouri River Basin, 16 mi. northeast Helena, Spec. 2580. CD 5/26/44—ENR 6/15/44.

New York—Bureau Contracts & Accounts, Albany, guard gates and widening short sect. of Barge Canal, at Little Falls, guard gates and spillway in Barge Canal, at Mohawk, both Herkimer Co. CD 7/29/47—ENR 8/7/47, under N. Y., Little Falls.

†Oregon—Bureau Reclamation, Dpt. Interior, Klamath Falls, earthwork and structures, and channel imprvs. for Lost River, Station 374 plus 50 and from 375 plus 54.2 to 665 plus 00, and Miller Creek, Station 0 plus 00 to 112 plus 46.4, Langell Valley, Modoc Unit, approx. 32 to 40 mi. southeast of Klamath Falls, Klamath Proj., Tule Lake Div., Spec. 2578.

†Texas — U. S. Eng., 606 Santa Fe Bldg., Galveston, dredging 5½ mi. Houston Ship Channel, from Greens Bayou to vicinity of Clinton, Inv. No. Eng-41-243-49-230. $275,000.

March 24

†Louisiana — U. S. Eng., foot of Prytania St., New Orleans, Zone 9, excav., 104,000 cu. yd., Little Bayou Bouef Channel Imprvt., Morehouse and Ouachita Parishes.

†Texas—U. S. Eng., 606 Santa Fe Bldg., Galveston, 8 dredging ranges in Galveston Harbor Entrance Channel, Galveston Co., Eng-41-243-49-231. $75,000.

March 25

†Louisiana — U S. Eng., foot of Prytania St., New Orleans, Zone 9, Bayou Lafourche Imprvt. Reach No. 1, Mile 0.00 to Mile 3.42, channel excav., Serial No. Eng. 16-04-49-236.

†Oregon-California — Bureau Reclamation, Dpt. Interior, Klamath Falls, earthwork and structures, Lost River diversion channel enlargement from Lost River to Klamath River, Modoc unit, Tule Lake Div, Klamath Proj, approx. 6 mi. south of Klamath Falls, Ore., Spec. 2582.

March 29

†Louisiana — U. S. Eng., foot of Prytania St., New Orleans, Zone 9, 3,840,000 cu. yd. semi-compacted embankment, Morganza Central Structure, Point Coupee Parish.

March 31

†California — Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Patterson, eleven 20x17 ft. radial gates with 5 in. diameter rollers, pin bearings, 10 in. wall plates and gate sills, with lettered dimensions; and eleven 15,000 lb. motor-operated radial-gate hoists with lettered dimensions, for Delta-Mendota Canal, Stations 1597 plus 00, 1825 plus 00, 2147 plus 00 and 1248 plus 00, Central Valley Proj., Spec. 2588. L. N. McClellan, ch. engr.

†Pennsylvania—U. S. Eng., 925 New Federal Bldg., Pittsburgh, Conemaugh Dam, Serial No. Eng.-36-058-49-99. CD 1/18—ENR 1/20.

April 1

†Washington — Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., North Coulee Dam, feeder canal and railroad relocation, at the north end of Grand Coulee within 2 mi. of Grand Coulee Dam, Columbia Basin Proj. Spec. 2586.

April 5

†Montana—Bureau Reclamation, Dpt. Interior, Bldg. 1A, Denver Federal Center, Denver, Colo., 1 lot fabricated wrought iron pipe, appurtenances, stilling well liner, 1 lot flanged wedge gate valves, flanged swing check valves, crewed plug type disc globe valve and screwed wedge disc gate valve; 1 lot flanged and screwed pipe fittings, bolts, studs, nuts, expansion anchors and gaskets; 1 lot standard iron pipe size brass pipe, screwed brass pipe fittings, brass screwed companion flanges; 3 tilting disc check valves; 1 lot c.i. pipe, etc., Hungry Horse Dam, Hungry Horse Proj., Spec. 2589. L. N. McClellan, ch. engr.

LOW BIDDERS

†Georgia and South Carolina—U. S. Eng., Post Office Bldg., Savannah, Ga., gate hoisting equip., from Willamette Iron & Steel Co., 2861 N. W. Front St., Portland, Ore. Schedule 1 **$100,900** and Schedule 2 **$174,900.**

†Illinois—U. S. Eng., 826 U. S. Courthouse & Customhouse, St. Louis, 1, Mo., Mar. 1, levees, Wood River Drainage and Levee Dist., Proj. Item 1-C, Madison Co., Serial No. Eng. 23-065-49-110, from Madison Constr. Co., Madison, **$494,467,** Est. $398,220. CD 2/16—ENR 2/24.

†Iowa—Soil Conservation Service, C. D. Thomas, Dpt. Agriculture Sioux City, Feb. 16, flood control works, Little Sioux Basin, Mortenson Watershed, incl. 9 flood control structures, etc., near Cherokee, R3-SCS 9200, from Claussen-Olsen-Benner, Inc., Holdrege, Neb., **$118,923.** CD 1/25—ENR 1/27.

†North Dakota—U. S. Eng., Fort Lincoln, P. O. Box 300, Bismarck, cancelled bids to have been opened Feb. 21, furnishing approx. 7,733,700 lb. structural steel for tunnel support, Inv. Eng-32-915-49-64.

†Oregon—U. S. Eng., 19 Poplar St., Walla Walla, Wash., Feb. 25, mfg. del. at McNary slide gates and operating machinery for Washington shore gates and fishlocks at McNary Dam on Columbia River, Umatilla Co., No. 45-164-49-20, from Northwest Marine Iron Works, 2516 N. W. 29 St., Portland, **$131,232.** CD 2/18.

†Washington—U. S. Eng., Pittock Block, Portland, Ore., pile dike and revetment along Columbia River at Kalama Port Dock, Cowlitz Co., No. 35-026-49-395, from Stoen's Rock & Landscape Co., 8406 Auroa Ave., Seattle, **$29,067.** Est. $40,390.

New Brunswick — Dpt. P. Wks., Hunter Bldg., Ottawa, Ont., Feb. 23, breakwater extens., Malliocks Beach, from Charlotte Constr. Co., St. Stephen, Approx. **$74,379.** CD 2/7—ENR 2/17.

CONTRACTS AWARDED

†Maryland—U. S. Eng., 1 and Douglas Sts. N. W. Wash. 25, D. C., Savage River Dam, Garrett Co., Serial No. Eng. 49-080-82(24)C, to Hunkin-Conkey & Shofner, Gorden & Hinman, Blairsville, Pa., **$862,728.** Bids 2/1. CD 2/4—ENR 2/10, under LB.

†N. Y., East Sidney—U. S. Eng., P. O. Box 1715, Baltimore 3, Md., East Sidney Reservoir clearing, Ouleout Creek, Inv. Eng-18-020-49-54, to J. P. Dugan & Son, Inc., 850 Meeker Ave., Brooklyn, Zone 22, **$33,995.** CD 12/29/43—ENR 1/13/44.

†South Dakota—Bureau Reclamation, Dpt. Interior, Moorcroft, Wyo., Schedules 3, 4, 5 and 6, constr. 1 four-room residence; furnishing, erecting wood office, wood bunkhouse, metal laboratory, warehouse and shop for Keyhole Govt. Camp, Spec. R6-23 (Region 6), Missouri River Basin Proj. Belle Fource Unit, to Max Luton, Gillette, **$53,827.** Bids 2/10.

AIRPORTS AND AIRBASES

BIDS ASKED

March 17

†Minn., Duluth—AIRPORT IMPRVS.—U. S. Eng., 1709 Jackson St., Omaha, Neb., hangar and utilities plants for Air National Guard Facilities at Duluth Municipal Airport, Serial No. Eng., 25-066-49-176 Extended date. CD 2/16—ENR 2/24.

On or About March 24

†W. Va., Charleston—AIRPORT—U. S. Eng., 820 West Broadway, Louisville 3, Ky., aircraft parking apron, etc., National Guard, Kanawha County Airport, Serial No. Eng-15-029-49-114 Extended date. CD 2/4—ENR 2/17.

March 31

†N. Y., White Plains—AIRPORT—U. S. Eng., 120 Wall St., New York, Zone 5, Air National Guard facilities at Westchester County Airport.

About April 1

Ga., Savannah—RUNWAY—City, exten. concrete runway at Hunter Field. $167,107. D. D. Hankins, city engr. CD 1/26—ENR 2/10.

April 5

†Alaska—BARRACKS, etc —U. S. Eng., Pier 51, Seattle, Wash., two 30x80 ft. barracks and four 25x46 ft. frame day and supply rooms, Elelson Air Force Base, Inv. S 95-507-49-14, CD 2/14—ENR 2/17; 60x160 ft. rein.-con. steel motor pool warm storage, Fort Richardson, Inv. S95-507-49-16, CD 2/8—ENR 2/10; outside utilities, Eielson Air Force Base, Inv. S95-507-49-13, CD 2/8—ENR 2/10. Extended date.

July 30

Neb., Valentine — AIRPORT — City, airport, $65,230. Extended date. CD 2/18—ENR 2/24.

LOW BIDDERS

†Calif., Moffet Field (near Sunnyvale)—LABORATORY—National Advisory Com. for Aeronautics, Ames Aeronautical Laboratory, Moffett Field, Feb. 24, 2 story, 112x156 ft., rein.-con., Ames Instrument Research Laboratory, Inv. A-333, from Carrico & Gautier, 365 Ocean Ave., San Francisco, **$566,087.** CD 2/9.

Ind., Evansville—ADMINISTRATION BLDG —Bd. Aviation Comrs., J. D. Beeler, chn., Evansville, rejected bids Feb. 21, administration bldg. addn., L. B. **$490,737.** Est. $400,000 CD 2/7—ENR 2/10.

Tex., Galveston—AIRPORT IMPRVS.—City, Feb. 24, airport administration from Tellepsen Constr. Co., 3900 Clay St., Houston, **$165,818.** Est. $149,000. CD 2/7—ENR 2/17.

LATIN AMERICA

Argentina—Republic of Argentina, Buenos Aires, 500 mi. gas pipeline from Plaza Huncal Territory of Neuquen to Town of General Conesa, Territory of Rio Negro, own forces, **140,000,000 pesos.** Direccion General de Gas del Estado, Buenos Aires. CD 4/7/47—ENR 4/17/47.

Chile, Santiago—Republic of Chile, Santiago, drilling 20 wells in Tierra del Fuego Zone, own forces. **$300,000.** Fomento Corp., Santiago, engrs.

PUBLIC BUILDINGS

BIDS ASKED

March 14

†N. Y., Voorheesville—U. S. Eng., Schenectady, altering Warehouse No. 2.

About March 15

Kan., LaCrosse—Rush Co., LaCrosse, hospital, $258,000. Joseph W. Radotinsky, 1401 Fairfax Trafficway, Kansas City, Kan., archt. CD 11/4—ENR 12/9.

March 15

Ill., Bellwood—School Dst. 88, Bellwood, 2 story, concrete, brick, steel Roosevelt School Addn. $360,000. L. N. Balluff, 35 E. Wacker Dr., Chicago, archt. CD 1/28—ENR 3/3.

Ill., Chicago—State, Springfield, general work, heating, ventilating, plumbing, electrical work, tuberculosis research bldg., $350,000. C. H. Hammond, state archt. CD 2/15—ENR 3/3.

Minn., Blue Earth—City, W. Enger, clk., City Hall, 2 story community hospital, $355,000. Plans deposit $12. Toltz, King & Day, 1509 Pioneer Bldg., St. Paul, archts.

March 16

Md., Carderock—P. Wks., Office, Potomac River Naval Command, Naval Gun Factory, Wash., D. C., 2 civilian quarters at David W. Taylor Model Basin, Spec. 20782.

Md., Cheltenham—P. Wks. Office, Potomac River Naval Command, Naval Gun Factory, Wash., D. C., 4 enlisted mens quarters at Navy Communications Station, Spec. 20782.

†Va., Dahlgren—Pub. Wks. Office, Potomac River Naval Command, Naval Gun factory, Wash., D. C., 16 officers quarters Naval Proving Grounds. Plans deposit $10.

Pa., Scotland—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, general contract, heating, plumbing, electrical work, storm and sanitary sewers, for Cottages 15 to 18 (inclusive) and Cottage Admin. Bldg. 19 at Penasylvania Soldiers Orphan School. Plans deposit $10 for general, $5 for others. Frank Highberger, 654 Washington Rd., Pittsburgh, Zone 16, archt. A. F. Jones, c/o owner, ch. engr. CD 2/10.

March 17

†N. Y., Far Rockaway—Pub. Bldgs. Admin., 731 Custom House, New York, Zone 4, misc. repairs to post office, **FWA.**

†Wash., Prosser—Dpt. Army, National Guard Bureau, office of U. S. Property & Disbursing Officer, State of Washington, Camp Murray, Fort Lewis, 55x60 ft. masonry vehicle storage bldg., Serial No. Contr. W-45-113-NG-6, W. A. Johnson, 1st. Natl. Bank Bldg., Everett, archt.

March 18

†Mass., Framingham—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, motor vehicle storage bldg., Massachusetts National Guard, Serial No. MNG 19-093-49-01. CD 1/28—ENR 2/3.

†Mass., Hingham—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, motor vehicle storage bldg., for Massachusetts National Guard, Serial No. MNG 19-093-49-01 CD 1/28—ENR 2/3.

†Mass., Quincy—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, motor vehicle storage bldg., Massachusetts National Guard, Serial No. MNG 19-093-49-01. CD 1/28—ENR 2/3.

Ill., Sesser—Goode-Barren Township High School Dist of Franklin Co. No. 104, c/o Secy., Sesser, 93x141 ft. and 30 ft. high brick, masonry and steel, wood gymnasium, high school alterations, incl. gymnasium, classrooms, home economics div., cafeteria, and shop. McCoy & Wilson, 1108½ Main St., Mt. Vernon, archts.

March 22

Calif., Fresno—Fresno Co., Courthouse, 2 story, 24,000 sq. ft. concrete nurses home at Fresno County General Hospital, $360,000. Plans deposit $50. Fred L. Swartz & Wm G Hyberg, Rowell Bldg., Fresno, archt. F. W. Kellberg, 320 Market St., San Francisco, engr. CD 10/28/47—ENR 11/6/47.

Fla., Miami—Bd. Comrs. Dade Co. Courthouse, juvenile detention home. Over $300,000. Plans deposit $20. Robert Fitch Smith, 201 Shoreland Bldg., archt CD 2/8—ENR 2/19.

†**Ga., Augusta**—U. S. Eng., Post Office Bldg., Savannah, constr. Post Exchange Bldg. 402 addns., Oliver General Hospital, Serial No. Eng-09-13-49-155. CD 1-11—ENR 1/13.

Ill., Mt. Vernon—National Guard, Bureau Property Disbursing Officer, Camp Ellis, Ill., motor storage bldg., Spec NG-6. Plans deposit $5.

Minn., Wells—Village, G. A. Uggen, pres. Village Council, 2 story, brick municipal hospital, $250,000. Plans deposit $5. Ellerbe & Co., E 505 First National Bank Bldg., St. Paul, archts.

O., Bowling Green—Dir. P. Wks., 705 Ohio Dpts. Bldg., Columbus. Unit A, Science bldg. for State of Ohio Bowling Green State University, $300,000. Peterson, Hoffman & Barber, Spitzer Bldg., Toledo, archts. and engrs. CD 6-15-45—ENR 6/28/45.

Tex., Marshall—Marshall Independent School Dist., Marshall, reconstruction masonry Dunbar (Negro) elementary school and 2 classroom addns. $300,000. Preston M. Geren, 905 N. P. Anderson Bldg., Fort Worth, archt. CD 12-5-46—ENR 12/26/46.

March 23

Mo., Rolla—Phelps Co. Public Memorial Hospital Bd. Trustees, F. H. Blue, pres. and D. L. Stuart, secy., 2 story, brick, concrete county general hospital, $400,000. Plans deposit $40. Ernest T. Friton, 410 Security Bldg., 319 N. 4th St., St. Louis, Zone 2, archt. CD 4-15—ENR 5/4/44.

N. Y., Buffalo—Bertram D. Tallamy, supt. P. Wks., Albany, 6 story, 620-bed 400x475 ft. brick, steel Medical-Surgical Bldg.; 58x164 ft. steel, brick powerhouse, 160 ft. brick stack, at Buffalo State Hospital for mental patients. CD 7-11-45—ENR 7/26/45.

Pa., Norristown—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, general contract, heating and ventilating, plumbing, electrical work, elevator for renovation of Bldg. 6 at Norristown State Hospital, $450,000. Plans deposit $10 for general, $5 each for others. Roth & Fleisher, 1420 Walnut St., Phila., archts. A. F. Jones, c/o owner, ch. engr. CD 1-16—ENR 2/5/48.

March 24

†**Md., Bethesda**—P. Bldgs. Admin., 1125 Federal Wks. Agency Bldg., Wash., D. C., utility bldg., National Institute of Health. Plans deposit $15. CD 2/21—ENR 2/24.

O., Findlay—Bd. Educ., Scott Elsio, chn., McKee and Huber Schools. Plans deposit $10. Outcalt, Guenther & Assoc., 13124 Shaker Square, Cleveland, Zone 20, archts. CD 5/3/48—ENR 5/6/48.

†**Va., Ft. Belvoir**—U. S. Eng., First and Douglas Sts. N. W., Wash. 25, D. C., family quarters, 2 story Row House-Colonial, Serial No. 49-080-49-115 (27) M.

About March 25

†**N. M., Albuquerque**—U. S. Eng., P. O. Box 1538, approx. 100x600 ft., rein.-con., brick warehouse, Sandia Base. Plans deposit $25.

March 25

La., Scotlandville—Louisiana State Bd. Educ., 18 Capitol Bldg., Baton Rouge, School for Blind and School for Deaf, alterations, addns. Plans deposit $20 each. Tanot & Reed, 402 Nola Bldg., New Orleans, archts. CD 12/14—ENR 12/16, under LB.

†**Mass., Boston**—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, 1 story, 45x224 ft., masonry motor vehicle storage bldg. CD 1-28—ENR 2/3.

†**Mass., Fall River**—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, 1 story, 55x185 ft. masonry motor vehicle storage bldg. CD 1-28—ENR 2/3.

†**Mass., Lynn**—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, 1 story, 40x122 ft., and 35x40 ft. masnry motor vehicle storage bldg. CD 1-28—ENR 2/3.

†**Mass., Taunton**—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, 1 story, 42x122 ft., masonry motor vehicle storage bldg. CD 1-28—ENR 2/3.

Pa., Johnstown—School Dist. of Richland Twp., R.D., Johnstown, 2 story, 60x177 ft., brick, hollow tile high school, Route 56, between Winder and Johnstown, $250,000. Hunter, Caldwell & Campbell, 3601-5 Ave., Altoona, archts.

Ark., Fayetteville—University of Arkansas, Fayetteville, fine arts bldg. Plans deposit $50. Haralson & Mott, 229 Mer. Nat. Bank, Ft. Smith, archts. CD 6-17-45—ENR 6/24/45.

March 29

†**Colo., Denver**—U. S. Eng., Railway Exchange Bldg., constr. E. Recreation Center by conversion Bldg. T-755, at Fitzsimons General Hospital, Announcement No. W-95-016-49-1.

March 30

Pa., Clarks Summit—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, general contract; mechanical and piping distr. sys.; electrical work for boiler house at Clarks Summit State Hospital. Plans deposit $10 each. John F. Gilboy, Jr., Bowman Bldg., Scranton, engr. CD 2/19/48—ENR 3/4/48.

March 31

O., Columbus—Bd. Educ., 270 E. State St., 118 x 119 ft., rein.-con. brick Indian Springs School, $225,000. Plans deposit $10. Edward Kromer, 270 E. State St., archt.

†**Tenn., Oak Ridge**—U. S. Atomic Energy Comn., P. O. Box 365, Attention Community Constr. Sect., 286 duplex housing units for negro families. Extended date. CD 2-7—ENR 2/17.

Va., Lynchburg—State Hospital Bd., Richmond, 2 story, bsmnt. personnel bldg., 1 story no bsmnt. patients bldg., irregular shape, wall bearing brick, limestone, etc. $750,000-$1,000,000. Plans deposit $25. Pendleton S. Clark, Keise Bldg., archt. Wiley & Wilson, American Bldg., Richmond, Va., and Watson-Hart, Greensboro, N. C., engrs. CD 1/5—ENR 1/20.

†**Washington**—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., furnishing, del. f.o.b. cars shipping point or f.o.b. cars Odair, Wash., three 40 kw air-duct electric heaters and three 44 kw air-duct electric heaters for Grand Coulee Right Power Plant, Columbia Basin Proj., Spec. 2581. L. N. McClellan, ch. engr.

April

Kan., Hutchinson—Reno Co., c/o County clerk, Hutchinson 1 story, concrete Reno County Convalescent Home, $250,000. Mann & Co., Wiley Bldg., archts. CD 11/17—ENR 12/9.

About April 1

●**Fla., Gainesville**—State Bd. Control, c/o Reynolds, Smith & Hills, archts., 227 Park St., Jacksonville, and Guy C. Fulton, 204 Peabody Hall, Gainesville, assoc. archts., engineering bldg. at University of Florida. Over $1,000,000. CD 6/29/44—ENR 7/12/44.

La., Ruston—Lincoln Parish Police Jury, Ruston, courthouse, **$500,000**. Neild & Somdal, Texas Eastern Bldg., Shreveport, archts. CD 2-25.

April 4

●**N. J., Paramus**—Bd. Freeholders Bergen Co., Admin. Bldg., Hackensack, hospital. York & Sawyer, 101 Park Ave., New York 17, N. Y., archts. Bids 11/18 rejected. L. B. **$2,569,000.** CD 11/26—ENR 12/9, under LB.

N. Y., Brooklyn—Supt. School Bldgs., Design & Constructn., 131 Hathush Ave. exten. Zone 1, general contract (east wing) addn. to P.S. 92, Parkside and Rogers Aves. Plans deposit $10. CD 8/13/45—ENR 8/23/45.

April 19

Miss., Columbus—State Bldg. Comn., c/o William I. Rosamond, archt., Propst Bldg., Chamberlain bldg., State College for Women. $500,000

April 26

●†**Alaska, Anchorage**—Alaska Native Service, Dpt. Interior, C St. between 18 and 19 Sts N.W., Wash., D. C., 5 story, 42x390 ft. and 42x278 ft., rein.-con. hospital, 1 story, 44x202 ft. administration bldg., 3 story, 35x240 ft. nurses home and three 3 story, 40x194 ft. apartments. $10,000,000. CD 8/5—ENR 8/29.

About May 15

†**Wis., Madison**—U. S. Eng., Clock Tower Bldg., Rock Island, Ill., 500 bed tuberculosis hospital for Veterans Administration, Virginia Ave. between H and I Sts. N. W., Wash. 25, D. C. CD 4-10—ENR 4/22.

About June 1

Ill., Morrison—Morrison Community High School Dist. 307, community high school. $950,000. R. A. Horn, Rock Island, archt. CD 1/29/47—ENR 2/6/47.

Pa., Penn Wynne (Phila. P. O.)—Lower Merion Twp. High School Dist., Ardmore, school addn. $300,000. George Wharton Pepper, Jr., Lewis Tower Bldg., Phila., archt. H. B. Nicholson, Old Broad Station Bldg., Phila., consult. engr.

LOW BIDDERS

California—State Div. Architecture, P. Wks. Bldg., Sacramento, Dists. 2A, 1 story, rein.-con. armories, Group I, Redwood City, Sunnyvale, Hayward and Pittsburg, from Barrett & Hilp, 918 Harrison St., San Francisco **$361,700**; Group 2, Hanford, Modesto, Reedley and Visalia, from E. H. Kaiser Co., Beverly Hills, **$351,900.** CD 2-2—ENR 2/10, under Calif., Redwood City, Sunnyvale, Hayward, Pittsburg, Hanford, Modesto, Reedley & Visalia.

Calif., Escondido—North San Diego County Hospital Dist., San Diego, Feb. 26, 1 and part 2 story, 31-bed rein.-con. Palomar Memorial Hospital, from Vistendahl, Inc., 7552 Fay St., LaJolla, **$308,900.** Est. $390,000. Bids 2/26. CD 2/15—ENR 2/17.

Ill., Evanston—Evanston Twp. High School Dist., 1560 Dodge Ave., Feb. 16, 1 and 2 story, brick, concrete, steel gymnasium and field house, from William E. Schweitzer & Co., 2209 Dodge St. **$560,323.** CD 1/18—ENR 1/20.

Ill., Kankakee—Bd. Educ., Kankakee, Feb. 21, 2 story, brick steel East Junior High School, and 2 story, brick, concrete, steel stone West Jr. High School, from Otis, Lemmon Co., 185 N. Wabash St., Chicago, **$664,100** and **$408,100** respectively. CD 1/26—ENR 2/3.

Mo., Kennett—Bd. Trustees Dunklin Co. Hospital, Dr. Paul Baldwin, chn., Court House, Feb. 24, 2 story, 42x246 ft., and 46x67 ft. T shaped brick, concrete hospital, third floor sect. 43x170 ft., from Ray M. Dilschneider, Inc., 8600 Manchester Rd., Brentwood, St. Louis, Zone 17, **$769,300.** CD 2-2—ENR 2/10.

Neb., Fremont—Bd. Pub. Wks., Feb. 17, power plant addn. from Francis R. Orahek Constr. Co., Fremont, **$355,000.** CD 2/3—ENR 2/10.

●**N. Y., New York**—New York City Housing Auth., 63 Park Row, Zone 7, Mar. 1, general contract Sedgwick Houses Proj. No. N.Y.C. 14, in area bounded by proposed Cross-Bronx Expressway on southeast, W. 174 St. on northeast, Undercliff Ave. on northwest and a line on southwest running along boundary of proposed park, Bronx Boro, from Del Balso Constr. Corp., 99 Columbia Heights, Brooklyn, **$4,293,580*****, plumbing, from Jesse E. Kahn, 131 W. 21 St., Zone 11, **$719,369*****electrical work, from Rao Electric Equip. Co., 150 E. 51 St., Zone 17, **$239,000.** CD 2/14—ENR 2/17.

●**Pa., Embreeville**—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, Mar. 2, general contract male and female ward bldgs. at Embreeville State Hospital, from McCloskey Homes, Inc., 1620 W. Thompson St., Phila., **$2,345,000*****heating, ventilating, plumbing and drainage, from Corbits, Inc., 225 S. Front St., Reading, **$388,566*****plumbing and heating, from Ambrose-Augusterfer Corp., 247 E. Ashmead St., Phila., Zone 44, **$412,000.** CD 1/24—ENR 2/3.

W. Va., Keyser—State Bd. Educ., Charleston, Feb. 23, brick, steel, rein.-con. science bldg. for West Virginia University, from John I. Vandegrift Co., Liberty Trust Bldg., Cumberland, Md., **$594,100.** CD 1/6—ENR 2/3.

CONTRACTS AWARDED

†**California**—U. S. Eng., 74 New Montgomery St., San Francisco, enlisted men's service club and swimming pool at Camp Stoneman, Spec. 04-203-49-5, to Vezey Constr. Co., 3760 Ardley Ave., Oakland, **$534,378.** Bids 12/14. CD 12—ENR 12/23, under LB.

Calif., Alhambra—City School Dist., 801 N. Garfield Ave., 375 x 400 ft. Martha Baldwin School, Almansor and Los Higos Sts., to Barrett & Hilp, 604 Ocean Center Bldg., Long Beach, **$613,300,** est. $600,000. Bids 2/21. CD 2/2—ENR 2/10.

Calif., Berkeley—Regents University of California, Berkeley, 4 story, 100,000 sq. ft., rein.-con. engineering bldg., to James I. Barnes Constr. Co., 1110 Montana Ave., Santa Monica, **$1,684,000.** Bids 2/19. CD 2/17—ENR 2/24, under LB.

●**Calif., Inyokern**—Yards & Docks Annex, Navy Dpt., Arlington, Va., 70 duplex dwellings, incl. roads, walks, utilities, Spec. 20746, to Haddock Engineers, Ltd., 1616 S. Greenwood St., Montebello, **$1,920,500.**

Conn., Groton—Town, C. M. Chester, chn. Bd. Educ., Groton, brick, steel school, Prospect St., Noank Sect., to Associated Constr. Co., 1010 Wethersfield Ave., Hartford, Est. **$250,000.** Bids 12/4. CD 1/18—ENR 1/20.

Fla., Miami Beach—Dade Co. Bd. Pub. Instruction, c/o contractor, Nautilus School to Star Constr. Co., Du Pont Bldg., Miami, **$329,100.** Bids 2/16. CD 2/4—ENR 2/10.

Ill., Cairo—Bd. Educ., School Dist. 1, general contract 2 story, 62x164 ft., with 40x80 ft. wing rein.-con., brick, steel, concrete Junior High School, Pine and Walnut Sts., 2 story, 61x131 ft. Washington Jr. High School, 18 and Walnut Sts., and 2 story, **33x170** ft. (first floor) 33x109 ft. (second floor) Sumner High School addn., 22 and Poplar Sts., to Edgar Stephens & Sons, Cairo, **$455,263.** Bids 2/24. CD 2/2—ENR 2/10.

Ill., Elmhurst—School Dist. 46, Elmhurst, 2 and 3 story 100,000 sq. ft., brick, stone Junior High School, to Patrick Warren Constr. Co., 815 N. Kedzie Ave., Chicago, **$1,320,000.** Bids 1/21, awarded 3/18. CD 1/4—ENR 1/13.

●**Ill., Hinsdale**—Hinsdale Twp., Hinsdale, high school, to E. H. Marhoefer Jr. Co., 505 N. LaSalle St., **$1,124,750.** Bids 2/14, awarded 2/28. CD 2/25—ENR 3/3.

Ill., Naperville—Bd. Educ., Naperville, 107,000 sq. ft. brick, steel, frame high school to George Sollitt Constr. Co., 100 N. Dearborn St., Chicago, **$737,244.** Thomas J. Higgins, 228 N. LaSalle St., Chicago, archt. R. J. Graham, 343 S. Dearborn St., Chicago, engr.

Mass., Boston—City of Boston Housing Auth., 10 Post Office Sq., 43 unit veterans housing, Columbia Rd. and P. St., South Boston, to Jefferson Constr. Co., 75 First St., Cambridge, **$506,181.** Bids 2/16, awarded 2/28. CD 2/25—ENR 3/3, under LB.

Minn., Bloomington (Minneapolis RFD)—Bd. Educ., Consolidated Schools Distr. 142, E. B. Chadwick, clk., general contract 1 story, bsmnt. school, to Standard Constr. Co., 2300 Builders Exchange Bldg., Minneapolis, **$318,620.** CD 1/12—ENR 1/27.

O., Lima—Bd. Educ., Lima City School Dist., Lima, 1 story, 145x207 ft., brick school, concrete fdn., to Herbert U. Tuttle, 670 W. Market St., **$310,310.** CD 7-21/44—ENR 8/10/44.

Okla., Pawhuska—City, City Hall, 2,000 hp diesel engine generator unit for the light plant, to Fairbanks-Morse & Co., 12 and Liberty Sts., Kansas City, Mo., **$96,600.** Est. $100,000. CD 1/7/48.

Tenn., Nashville—Nashville Housing Auth., c/o contractor, service and office, to Sumner Constr. Co., 921 8th Ave. N., **$75,965.**

●**Tex., Bryan**—City, installing, providing two 5,000 kw. steam turbines, generators, boilers, etc., power plant to Mann Electric Co., 808 Blodgett St., Houston, **$1,379,000.** Bids 2/11. CD 2/17—ENR 2/24, under LB.

Va., Arlington—Arlington Co., Courthouse, two 3 story wings for Arlington County Courthouse, to Lee T. Turner, 3616 14 St. N.W., Wash., D. C., **$658,780.** Bids 10/6. CD 10/12—ENR 10/14, under LB.

●†**Washington**—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, Colo., Schedule 1, three 165,000 hp. hydraulic turbines for Units R7, R8 and R9,

spec. 2425, Columbia Basin Proj., to Newport News Shipbuilding & Dry Dock Co., Newport News, Va., **$2,497,950.** f.o.b. Newport, Awarded 2/21. CD 11/30—ENR 12/2, under LH3.

Wis., Wauwatosa—Lane School Dist., 10816 W. Madison St., Zone 13, 2 story, 56x107 ft., steel, brick school addn., concrete fdn. to E. C. Knuth & Co., 2919 W. Fond du Lac Ave., Milwaukee, Zone 10. Est. **$340,000.** Lindl-Schutte & Assoc., 808 N. 3 St., Milwaukee, Zone 3, archts. CD 2/8/45—ENR 2/22/45.

B. C., Victoria—Province of British Columbia, Victoria, 4 story, 63 x 108 ft., rein.-con. brick, steel, St. Joseph Hospital addn., Collinson St., to Sullivan Constr. Co. Ltd., 736 Granville St., Vancouver, **$250,000.** CD 4/16/46—ENR 7/11/46.

Ont., Parry Sound—High School Bd., Parry Sound, 1 story, 60x80 ft. and 60x430 ft., concrete, school, to Hill-Clark-Francis, Ltd., 7 Whitewood Ave., New Liskeard, **$449,850.** Bids 2/4. C/D 1/18—ENR 1/20.

Ont., Toronto—Hydro Electric Comn. of Ontario, 620 University Ave., frequency change over bldg., to Nicholls & Milne Ltd., 57 Bloor St. W. Est. **$75,000.** CD 2/26/48—ENR 3/4/48.

Ont., Wallaceburg—Dist. High School Bd., Wallaceburg, 160x280 ft., concrete, brick school, to Sterling Constr. Co. Ltd., 344 Wellington St., London, **$397,420.** Bids 2/10. CD 1/28—ENR 2/3.

COMMERCIAL BUILDINGS

BIDS ASKED

March 15

Ark., Crossett—At office Mr. Watzek, chn., Crossett Health Foundation, 1 story, 43,000 sq. ft., frame, first floor and fire walls rein.-con. health center. $650,000. William Lescaze, 211 E. 49 St., New York, 17, N. Y., archt. CD 2/2—ENR 2/10.

March 16

S. C., Clinton—The McPherson Co., engrs., Greenville, office, for Clinton Cotton Mills, Clinton.

March 18

Fla., Clearwater—J. C. Penney Co., c/o Roy W. Walkeling, archt., Coachman Bldg., (selected list of bidders) department store.

Va., Abingdon—At office Roy C. Brown, dir. Bd. Trustees, Johnston Memorial Hospital, Abingdon, Johnston Memorial Hospital addn. Eubank & Caldwell, Inc., Boxley Bldg., Roanoke, archts. William A. Brown, 2035 K St., Wash., D. C., consult. engr.

March 21

Mass., Sheffield—Hampson & Fisher, archts., 20 Backman Ave., Pittsfield, gymnasium, incl. swimming pool, hockey rink, squash court, bleachers, basketball court, for Berkshire School, Keep House Rd., R. D. Kimball Co., 6 Beacon St., Boston, engr. $275,000.

Tenn., Memphis—Poplar Highland Plaza, Inc., c/o Everett Woods, archt., 81 Madison Bldg., theater. $250,000.

March 22

S. C., Clinton—Clinton Community Hotel Corp., c/o Roy E. Hitchcock, archt., Athens, Ga., 40 room hotel. Plans deposit $35.

March 25

Ark., Little Rock—Pulaski Heights Methodist Church, c/o Brueggeman, Swaim & Allen, archts., Gazette Bldg., church. Extended date. CD 2/11—ENR 2/17.

Bids Asked

Conn., Coventry—Southern New England Telephone Co., 227 Church St., New Haven, brick, steel, telephone service bldg., Harold H. Irvis, 29 Whitney Ave., New Haven, archt.

O., Mansfield—Thomas & Wagoner, archts., 117 S. 17 St., Phila., Pa., sanctuary chapel, school and social hall, for First Congregational Church, Mansfield. $300,000. Charles W. Conklin, Farmers Bank Bldg., assoc. archt. CD 2/2—ENR 2/17.

Pa., Phila.—Upholsterers International Union, 1500 N. Broad St., union headquarters bldg. addn., alterations. $400,000. Louis A. Manfredi, 2228 Mifflin St., archt.

SOON LETS CONTRACT

Ala., Birmingham—Oak Hill Gardens, Inc., Exchange Bldg., soon lets contract 50 garden type apartments, $255,000. Pembleton & Mims, Title Guarantee Bldg., archts.

Ala., Birmingham—N. H. Waters, c/o Pembleton & Mins, archts., Title Guarantee Bldg., soon lets contract, apartment development. Over $250,000. CD 2/23—ENR 3/2.

La., Tallulah—First Baptist Church, c/o Peyton & Bosworth, archts., 502 Continental American Bank Bldg., Shreveport, soon lets contract church.

Tex., Corpus Christi—St. Patrick School and Convent, 3350 S. Alameda St., soon lets contract masonry school and convent units. $300,000. Robert L. Vogler, 225 Oleander St., archt.

LOW BIDDERS

Fla., Miami—Rader Memorial Methodist Church, c/o low bidder, church, from Hamilton Constr. Co., 6900 N. E. 2 Ave., **$262,100.** CD 2/3/48—ENR 3/4/48.

Fla., Tallahassee—First Baptist Church, c/o Prentiss Huddleston, pres., 211 N. Adams St., Feb. 25, educational bldg., from Jack Culpepper, 113 E. Park Ave., Tallahassee, **$319,000.** CD 1/27—ENR 2/3.

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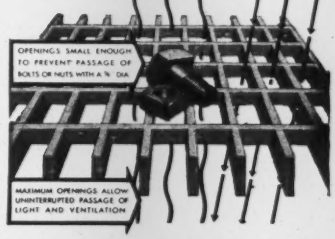
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●**Pa., Clearfield**—Clearfield Hospital, Clearfield, hospital, from Crumpa, Inc., 4031 Bigelow Blvd., Pittsburgh, **$1,219,718.** CD 2/17—ENR 2/24.

Pa., Sunbury—Sunbury Community Hospital, L. G. Parrish, supt., Sunbury, Feb. 24, general contract hospital, from Ritter Bros., 1511 N. Cameron St., Harrisburg, **$922,268.** CD 1/24—ENR 2/3.

CONTRACTS AWARDED

●**Calif., Bellflower**—Charles Hosckian, 6020 E. Olympic Blvd., Los Angeles, 210 frame, stucco dwellings. Owner builds, **$1,000,000.**

●**Calif., Boyes Hot Springs**—Archbishop Hanna Center, Inc., 785 Market St., San Francisco, Archbishop Hanna School for Boys, to Williams & Burrows, Inc., 10 California Dr., Burlingame, **$1,230,000.** Bids 1/14. CD 1/24—ENR 1/27, under LB.

Calif., El Monte—Tyler Park Corp., 657 E. Klingerman St., 48 frame, stucco dwellings. Owner builds. Over **$250,000.**

Calif., Los Angeles—Ambassador Hotel Corp., 3400 Wilshire Blvd., two 2 story, frame, stucco hotel bungalows, 81 rooms, service tunnel, to Shumaker-Evans, 6631 E. 26 St., **$550,000.** Paul R. Williams, 3727 Wilshire Blvd., archt.

Calif., Los Angeles—Bultry Corp., 9700 W. Pico Blvd., 80 frame, stucco dwellings Hoover St., between 148 and 14 Sts. Owner builds. **$477,040.**

Calif., Los Angeles—Panorama Community Homes, 5555 W. Manchester Blvd., 92 frame, stucco dwellings, 8300, 8400 and 8500 blocks Ranchito and Cantaloupe Ave., to Kaiser Community Home, c/o owner, **$560,000.**

Calif., Pebble Beach—Del Monte Properties Co., Pebble Beach, 2 story, steel, reincon., frame shops and office at Pebble Beach Lodge, to Barrett & Hilp, 918 Harrison St., San Francisco, **$254,485.** Bids 2/16, awarded 2/21. CD 2/7—ENR 2/10.

Calif., Redwood City—Land Development Co., c/o J. Lloyd Conrich, archt., 593 Market St., San Francisco, 1 and part 2 story, concrete bldg. incl. 16 bowling alleys, 8 pool tables, restaurant, bar and 6 stores, to Mihu Constr. Co., 405 Montgomery St., San Francisco, **$100,000.** CD 3/19/45—ENR 4/5/45.

Calif., Santa Ana—L. Ryness, 5801 E. Randolph St., Huntington Park, sixty 4-room frame dwellings. Owner builds. Over **$250,000.** Bill Ding, 3202 Cardiff St., Los Angeles, archt.

●**Calif., Woodside**—M. J. King Co., 1471 Franklin St., San Francisco, 500 residences off Woodside Rd. near Alameda de Pulgas. Owner builds. Over **$4,000,000.** J. Lloyd Conrich, 593 Market St., San Francisco, archt.

Conn., West Hartford—Anthony Aliosi, 40 Newfield Ave., Hartford, 40 frame homes on 20 acre site, Tunxis and Ridgewood Rds. Owner builds **$500,000.** CD 2/25.

Fla., Hialeah—S. E. Daniels, Inc., 944 E. 25 St., 94 homes. Owner builds. Over **$300,000.**

Fla., Miami—Owner, c/o Harry E. Penney, 2991 Coral Way, 90 homes in Bay Vista Terrace Sect., to Terry Constr. Co., 150 N. W. 73 St. Est. over **$250,000.**

Fla., Orlando—Al-Ho-Ma, Inc., c/o R. C. Aland, Orlando, 102 homes. Owner builds, **$500,000.**

Fla., South Miami—Southern Bell Telephone Co., Hurt Bldg., Atlanta Ga., telephone exchange to Barge-Thompson Co., 136 Ellis St. N. E., Atlanta, Ga. Est. over **$300,000.**

Fla., West Palm Beach—Florida Coastal Theaters, c/o contractor, theater, to Caldwell-Scott Co., Ft. Lauderdale Est. **$250,000.**

Ga., Savannah—Carver Village, Inc., Norris T. Sherry, dir., 126 addnl. homes, force account, **$378,000.**

Ill., Mount Vernon—Good Samaritan Hospital, Sisters of St. Francis, c/o Mother M. Aloysia, Sister Superior, Centralia Ill., general contract, 3 story, basmt., 48 x 238 ft., brick, concrete stone general hospital, to J. L. Simmons Constr. Co., 2146 N. Woodford St., Decatur, **$1,065,383.** Est. $1,164,000. Bids 1/13. CD 10/19—ENR 10/21.

Ky., Louisville—Leroy Highbaugh Builders 509 W. Market St., 85 homes, force account. Over **$300,000.**

Md., Baltimore—Commonwealth Constr. Co., 5314 Reisterstown Rd., forty-two 2 story, 18 x 29 x 31 ft., brick houses, 1700 and 1800 Block E. Belvedere Ave., 5400 and 5500 block Hillen Rd., separate contracts **$416,000.** Jerome Kahn, 5314 Reisterstown Rd., archt.

●**Mass., Cambridge**—Harvard University, Edward Reynolds, vice pres., Cambridge, Botanic Garden Apartments, Limtaean and Raymond Sts., to Aberthaw Co., 80 Federal St., Boston, Approx. **$1,700,000.** Bids 1/25, awarded 2/3. CD 1/10—ENR 1-13.

Minn., Minneapolis—Holy Cross Roman Catholic Parish, Msgr. V. W. Morelli, 1621 University Ave. N.E., general contract 2 story, basmt., 92x152 ft. school, 17 Ave. and 4 St. N. E., to Standard Constr. Co., 250 Builders Exchange Bldg., **$371,781.** CD 12/23—ENR 1/8.

Minn., St. Paul—Arcade Investment Co., 350 St. Peter St., general contract office bldg. alterations, 14-30 Fifth St., refacing bldg. on 5 St. side, 1 story and above 1 story, to R. A. Sheldgren, 2102 Wabash Ave. **$300,000.**

Miss., Greenville—Southern Bell Telephone Co., Hurt Bldg., Atlanta, Ga., dial toll office bldg., to Batson-Cook Co., West Point, Ga. Est. over **$300,000.** CD 2-2—ENR 2/10.

N. J., Camden—Irving Tesler, 1900 Park Blvd., residential development, Sayres Ave., separate contracts. **$350,000.** Dante D'Anastasio, 2010 Horner Ave., Pennsauken, archt.

N. J., Pitman—Charles Casale, 428 S. Fernwood Ave., residential development, separate contracts. **$500,000.** Dante D'Anastasio, 2010 Horner Ave., Pennsauken, archt.

Pa., Butler—St. Michael R. C. Congregation, Spring St., 1 story, basmt., 63x160 ft., stone church; 2 story, basmt., 61x36 ft. steel rectory, Spring St., to George Schenck Co., 413 W. Jefferson St., Est. **$250,000.** CD 9/22—ENR 9/30.

●**Pa., Chester**—Owner, c/o Edwards & Green, archts., Broadway and Carmen Sts., Camden, N. J., apartment development, separate contracts. **$1,750,000.**

Pa., Marble Hall (Conshohocken P. O.)—Ridgmar Golf Club Ridge Pike, Marble Hall, club house, to John A. Robbins Co., Inc., 19 S. 18 St., Phila. Zone 2, **$250,000.** Awarded 2/1. George W. Neff, 1520 Locust St., Phila., archt., Manuel A. Greenberg, c/o archt., engr. CD 4/23/48—ENR 4/29/48.

Pa., Norristown—S. DiMedio, 6 and Fayette Sts., Conshohocken, residential development, Colwells Lane, to Philip Gravinese, 147 W. Third Ave., Conshohocken, **$300,000.** J. V. Hoey, 824 W. Marshall St., engr.

Pa., Phila.—Philip Shapiro, Terminal Hotel, apartment, 1512 W. Allegheny Ave., separate contracts. **$650,000.** Edwards & Green, Broadway and Carmen Sts., Camden, N. J., archts.

Pa., Pittsburgh—Brittany, Inc., 101 Central Sq. Zone 16, 3 story, basmnt., 97x99 ft., brick, block, steel apartment, Brownsville Rd. Owner builds. **$250,000.** Tennyson & Van Wart, 666 Washington Rd. Zone 16, archts.

Pa., Pittsburgh—Rippey Gardens, Inc., 438 Winterhill St., Zone 25, two 3 story, brick and wall bearing apartments. Owner builds. **$325,000.** Phillip Fiedman, 121 S. Negley Ave., archt.

S. C., Camden—Lewis Lee Clyburn & Charles Shannon, Camden, 100 homes. Owner builds. Over **$300,000.**

Tenn., Memphis—Wallace E. Johnson, Inc., 875 Raynor St., 200 or more homes. Owner builds. Over **$250,000.**

Tex., Beaumont—Oaklane Corp., c/o W. J. Christian & Assoc., 122 Bowie St., 44 apartment units, own forces. **$325,000.** CD 2/16.

Tex., Beaumont—Texas Millions, Inc., c/o Carl Levy, Beaumont, housing and utilities, own forces. **$300,000.** CD 10/22—ENR 11/4.

Tex. Bellaire—George A. Beck & Fred T. Harrison, 2801 Rice Blvd., Houston, housing. Owner builds. **$250,000.** CD 2/21.

Tex., Bellaire—J. S. Norman Bldg. Corp., 4815 Richmond Rd., Houston, addnl. housing in Norman Addn., adjacent to Bellaire, Owner builds. **$100,000.** CD 2/9—ENR 2/24.

Tex., Corpus Christi—Jack Grant; 462 Atlantic St., 55 dwellings, own forces. Approx. **$275,000.** CD 8/19—ENR 8/26.

Tex., Dallas—Lewis & Lamberth, 3728 Mt. Rainier St., 200 residences, own forces. **$700,000.** CD 3/3/48—ENR 3/11/48.

Tex., Dallas—Robb & Rowley Theaters, 314 S. Harwood St., Dallas, theatre, to Pettigrew-Worley & Co., 160 Avery St., **$265,000.** CD 2/21.

Tex., Duncanville—Henry Pelt, Duncanville, 50 duplex units. Owner builds. **$300,000.** CD 2/25.

Tex., Ft. Worth—Westridge Management Co., Don Waggoner Bldg., Westridge Shopping Center facing 412 ft. on Camp Bowie Blvd. X 80 ft. to be occupied by 16 establishments. Owner builds. **$400,000.**

Tex., Garland—Trigg Bell, 1561–El Campo St. Dallas, 18 duplexes. Owner builds. **$250,000.** Awarded 2/17.

Tex., Garland—Fred L. Galbraith Co., 3831 Cedar Springs Rd., Dallas, 90 dwellings, off Garland-Rd. 5 mi. northeast Buckner Blvd. Owner builds. Approx. **$475,000.** CD 2/25.

Tex., Garland—Garland Builders, Inc., c/o O. S. Hurley, Garland, 99 dwellings, Owner builds. Approx. **$700,000.** CD 2/25.

Tex., Garland—H. & N. Builders, c/o W. R. Hawn, Garland, 128 dwellings. Owner builds. Approx. **$650,000.** CD 2/25.

Tex., Garland—Tom Liveley & Ira Rupley, Wilson Bldg., Dallas, 53 dwellings, own forces. **$275,090.** CD 2/25.

Tex., Houston—R. F. Beeler & P. Plumb, 4511 Almeda St., 43 dwellings, Teas Garden subdivision, to Marlo Constr. Co., c/o owner. **$155,000.** CD 2/21.

Tex., Houston—Mervin W. Henry, 3106 Randall St., 50 dwellings at various locations, force account. **$375,000.** CD 2/14.

Tex., Houston—Best Home Builders, Inc., c/o J. E. Leicher & Assoc., 2402 Arbor St., 100 dwellings, off Old Spanish Trail and Holmes Rds., own forces. Approx. **$600,000.** CD 2/11—ENR 2/24.

Tex., Houston—Leon Green & Assoc., 2301 Cleburne St., 65 unit DuBarry Hotel, own forces. **$325,000.** Bailey A. Swenson, 3106 Brazos St., archt.

Tex., Houston—H. R. LeMay, 4818 Main St., 50 dwellings. Owner builds. **$425,000.** CD 2/14—ENR 2/24.

Tex., Houston—R. A. McWilliams, M. Esperson Bldg., 30 dwellings, own forces. **$250,000.** CD 2/14—ENR 2/24.

●**Tex., Houston**—Oak Forest Corp., c/o Frank Sharp, 2202 Rosslyn St., 455 dwellings, sect. bordering Oak Forest Proper. Owner builds. Approx. **$3,750,000.** CD 2/21.

Tex., Houston—Oak Forest Constr. Co., c/o P. S. Luttrell, 2230 Albans St., 100 dwellings. Owner builds. Approx. **$700,000.** CD 2/11—ENR 2/24.

●**Tex., Houston**—Southern Builders, Inc., c/o S. Hogan, 1200 Givens St., community or shopping center abutting on Telephone Rd. adjacent Greenway Park Addn. Owner builds. **$1,250,000.** CD 7/16/47—ENR 8/7/47.

Tex., Irving—Lloyd Blalock, Belton St., Dallas, 65 dwellings day labor. Approx. **$375,000.** CD 2/25.

Tex., Kerrville—Heart O'Hills, Inc., Kerrville, reconstructing inn and resort, Purchase and Hire. **$250,000.** CD 11/24—ENR 12/16.

Tex., Mesquite—East Dallas Lumber & Materials Co., Inc., 2615 N. Haskell St., Dallas, 50 low cost dwellings, Purchase and Hire. Approx. **$300,000.** CD 2/25.

Tex., Pasadena—R. F. Beeler & P. Plumb, 4511 Almeda St., Houston, 50 dwellings, to Marlo Constr. Co., 4511 Almeda St., Houston, **$375,000.** CD 2/21.

●**Tex., Pasadena**—Max Krauss, Pasadena, 200 duplex units, own forces. **$1,450,000.** CD 4/13/48—ENR 4/29/48.

Tex., Port Lavaca—Tom De Shazor, Port Lavaca, 93 dwellings, Owner builds. **$560,000.** CD 1/14—ENR 2/3.

Tex., Richardson—Bob Greathouse, 5003 Linnett Lane, Dallas, 37 dwellings. Owner builds. **$300,000.** CD 2/25.

Tex., Richardson—Tom Jackson, Richardson, 100 dwellings, Northern Hills sub-division Owner builds. **$700,000.** CD 2/25.

Tex., San Antonio—Thurman Barrett & Assoc., 6109 S. Flores St., addnl. housing, day labor. **$300,000.** CD 2/9—ENR 2/10.

●**Tex., San Antonio**—Bellmeade Corp., c/o Albert Steves, III, 716 E. Commerce St., 22 two story apartments, Hathaway Dr. in Bellmeade Addn. Purchase and Hire. Approx. **$1,250,000.** CD 1/26—ENR 2/17.

Tex., San Antonio—E. J. Burke & Sons, 4220 S. Zarzamora St., addnl. duplexes on 49 acre tract, day labor. **$100,000.** CD 2/2.

Tex., San Antonio—E. S. Johnson, 1211 Clegg St., 35 dwellings. Owner builds. **$260,000.** CD 2/25.

Tex., San Antonio—Texas Development Co., Alamo Natl. Bldg., residential proj., Terrell Hills, force account. **$375,000.** CD 2/9—ENR 2/10.

Tex., San Antonio—Texas Development Co., Alamo National Bldg., housing in Jefferson Dist., force account. **$325,000.** CD 2/9—ENR 2/10.

Tex., Texas City—Southwestern Bell Telephone Co., 308 S. Akard St., Dallas, telephone bldg. to Fretz Constr. Co., 2000 Eastwood St. **$261,000.** Bid 2/9. CD 2/2—ENR 2/10.

Tex., Waco—Baylor University, Waco, stone extension library, to Swigert Constr. Co., 1405 S. 5 St. **$550,000.** Wyatt C. Hedrick, 1005 1st. Natl. Bank Bldg., Fort Worth, archt. W. E. Simpson Co., Milam Bldg., San Antonio, engr. CD 11/24/47—ENR 12/4/47.

Va., Richmond—Lewis Road Corp. 2½ I North Fifth St., 122 family unit apartment, in proposed Lewis Gardens subdivision, to Franklin A. Trice, 29 Malvern Ave. Est. **$671,000.**

●**Alta., Calgary**—Whitney—Phoenix of Canada Ltd., Calgary, 16 story, rein.-con., steel, brick, stone bldg., to Thompson-Starrett Co., Inc., 444 Madison Ave., New York, N. Y., U. S. A., Est. over **$1,000,000.**

●**Alta., Edmonton**—M. D. Muttart, 12201 Jasper Ave., 500 houses. Owner builds. **$3,000,000.**

Alta., Edmonton—John Schadeck, 10410 135 St., thirty-three 1½ story, 26x32 ft. concrete, frame dwellings, 142 St. Owner builds. **$310,000.**

Alta., Edmonton—S. Solokoski, 2504 114 Ave., Edmonton, concrete, brick houses, various streets. **$500,000.** Owner builds.

Ont., Woodstock—Huron Development Co. Ltd., c/o MacDougall & Whaley, 477 Dundas St., housing, to Western General Constr. Ltd., Woodstock. Est. **$700,000.** CD 6/5/47—ENR 7/10.

Que., Montreal—G. Daneau, 3720 Van Horne Ave., apartment, near Hillcrest Ave. Owner builds. **$350,000.** C. Grenier, 170 Geneve Crescent, Mount Royal, archt.

INDUSTRIAL BUILDINGS

BIDS ASKED

March 15

●**Ark., Pine Bluff**—PLANT—Pine Crest Cotton Mills, c/o Hardy & Schumaker, archts., 410 Scarritt Arcade, Kansas City, Mo., cotton processing plant, $3,000,000. CD 2/16—ENR 2/24.

March 16

Ark., Fayetteville—WAREHOUSE, etc.—Ozark Rural Electric Co-operative, Fayetteville, warehouse and office. Over $75,000. Plans deposit $25. Paul Young, Jr., Fayetteville archt.

Tenn., Memphis—WAREHOUSE, etc.—W. T. Rawleigh Co., c/o Anker F. Hansen, archt., Colonial Mutual Tower, warehouse and office. $250,000. CD 5/17—ENR 5/27.

March 18

Ont., Red Rock—STATION, etc.—E. R. Logie, ch. engr., 436 Union Station, Toronto,

station and dwelling combination, for Canadian National R. R., 360 McGill St., Montreal, Que. Plans deposit $50.

March 22

Ala., Birmingham—PLANT—Standard Casket Mfg. Co., c/o Miller Martin & Lewis, archts., Title Guarantee Bldg., casket mfg. plant.

Ore., Portland—PLANT—Zidell Machinery & Equipment Co., 1003 S. W. Front St., remodeling, rebuilding plant. Herzog & Barnes, Henry Bldg., archts.

March 25

Ga., Covington—WAREHOUSE, etc.—Snapping Shoals Electric Membership Corp., Covington, warehouse and office. Plans deposit $25. Southern Eng. Co., 699 Spring St. N. W., Atlanta, Ga., archts.

March 29

Ga., Jackson—WAREHOUSE, etc.—Central Georgia Electric Membership Corp., Jackson, warehouse and office. Plans deposit $25. Southern Eng. Co., 699 Spring St. N. W., Atlanta, archts.

Bids Asked

Conn., Hamden—FACTORY—Yaleco Rubber Co., 69 Willow St., New Haven, 1 story, 60 x 200 ft., brick, cinder blocks factory, Dixwell Ave., Hamden. Charles H. Abramowitz, 52 Goffe St., New Haven, archt.

Conn., Hartford—OIL TERMINAL—Sun Oil Co., 835 Statler Bldg., Boston, Mass., (selected list of bidders) 2 story, frame concrete bulk plant oil terminal, incl. tanks, etc. $68,000.

Conn., Plainville—SERVICE GARAGE, etc. —Parsons Buick Co., Whiting St., 1 story, 83 x 130 ft., brick, steel service garage and showroom. East St. $70,000. Paul H. Olson, 171 Washington St., Hartford, archt.

Pa., Phila. — PACKING PLANT—Morris Fruchtbaum, engr., 328 Chestnut St., packing plant, for Morris Riloff, c/o engr. Over $68,000.

Ont., Welland—PLANT—Gelling Industries, 201 Magor St., 1 story, 45x95 ft. concrete, steel plant addn. $75,000. N. A. Kearns, 20 E. Main St., archt.

SOON LETS CONTRACT

Ala., Blue Mountain—MILL—Linen Thread Co., Inc., Blue Mountain, soon lets contract mill addn. Robert & Co. Assoc., 96 Poplar St., Atlanta, Ga., archts.

La., New Orleans—SALES and SERVICE—Bohn Motor Co., 2700 S. Broad St., soon lets contract auto sales and service addn. Wogan, Fernard & de la Vergne, Pere Marquette Bldg., archts. CD 2/28—ENR 3/3; under LB.

Calif., Oakland—WAREHOUSE, etc.—Walter N. Boysen Paint Co., 42 and Linden Sts., soon lets contract 2 story, 55 x 86 ft. warehouse and office. Over $68,000. Irwin J. Johnson, 449 MacArthur Blvd., archt.

Conn., Hamden — FACTORY, etc.—High Standard Mfg. Corp., 1017 Dixwell Ave. soon lets contract 1 and 2 story, brick, steel factory and office Dixwell Ave. $100,000. Westcott & Mapes, Inc., 109 Church St., New Haven, archts. ENR 6/17.

●**D. C., Wash.** — PLANT—The Washington Post Newspaper Co., 1337 E. St. N. W., soon lets contract newspaper plant, $1,000,000. Albert Kahn Associated Architects & Engineers, Inc., 7430 2 Blvd., Detroit, Mich., archt.

Tex., Houston — WAREHOUSE—Southwestern Theater Equipment Co., 1416 Main St., soon lets contract 2 story, 50 x 100 ft., brick warehouse, rein.-con. slab fdn. $75,000. Earl Gilbert, 3908 S. Main St., engr.

LOW BIDDERS

La., New Orleans—SALES and SERVICE—Bohn Motor Co., 2700 S. Broad St., rejected bids Feb. 15, auto sales and service bldg. addn.

Md., Baltimore—SALES and SERVICE—Miller Motors Inc., 5927 Belair Rd., Feb. 23, 1 story and 2 story, 63x76 ft., brick, concrete block sales and service bldg. addn., from J. Vinton Schaefer, 4208 White Ave., **$74,000.** Cyril H. Hebrank, 20 E. Lexington St., archt. CD 2/16—ENR 2/24.

S. C., Camden—TERMINAL—Atlantic Greyhound Corp., Kanawaha Valley Bldg., Charleston, 29, W. Va., rejected bids Feb. 15, terminal bldg. Will re-advertise. CD 2/9—ENR 2/17.

S. C., Clinton—WAREHOUSE—Lydia Mills, Clinton, Feb. 21, warehouse addn., from Peden Constr. Co., Greenville, **$121,000.** CD 2/11—ENR 2/17.

Que., Montreal—FACTORY—Universal Ornament & Buckle Mfg. Co. Ltd., 540 Beaudry St., factory, Parthevais St. near St. Catherine St. W., from Bercovitch & Floros Ltd., 4204 Marquette St., Approx. **$140,000.** J. Z. Gauthier, 2602 Soissons Ave., archt.

CONTRACTS AWARDED

Ala., Tuscaloosa—PLANT—The Logan-Long Co., c/o contractor, roofing mfg. plant, to Morgan-Holloman Constr. Co., Tuscaloosa. Est. over **$200,000.** Donald A. Hawkins, Tuscaloosa, archt.

Ark., Dumas — WAREHOUSE — Federated Compress & Warehouse Co., Cotton Exchange Bldg., Little Rock, warehouse, to G. Larry Kelley Constr. Co., Cotton Exchange Bldg., Little Rock. Est. **$100,000.**

Ark., Marion — WAREHOUSE — Federated Compress & Warehouse Co., Cotton Exchange Bldg., Little Rock, warehouse, to G. Larry Kelley Constr. Co., Cotton Exchange Bldg., Little Rock. Est. **$100,000.**

Calif., Berkeley—FACTORY—H. J. Heinz Co., 2900 San Pablo St., Berkeley, remodeling factory, to Robert D. Bardell, 1728 Market St., San Francisco, **$86,278.**

Calif., San Jose—FACTORY—Levi Strauss & Co., 19 S. Market St., rein.-con. mfg. factory, to Bridges Constr. Co., 350 N. Montgomery St., **$163,263.** W. B. Lotz, 35 W. San Carols St., engr. CD 12/1—ENR 12/15.

Calif., South San Francisco— PLANT—Consolidated Western Steel Co., Butler Rd. and New Freeway, steel plant addn. Owner builds. **$495,000.**

Conn., Hamden—FACTORY—Regina Realty Co., 52 Goffe St., New Haven, 1 story, 65 x 125 ft., wing 25 x 45 ft., brick, steel factory, State St. Owner builds, **$80,000.** Charles Abramowitz, 52 Goffe St., New Haven, archt.

Conn., Norwalk — FACTORY—Barnadine Corp., 734 E. 7 St., New York, N. Y., 1 story, 127 x 280 ft., brick, cinder blocks factory with 2 wings 25 x 27 ft. and 20 x 27 ft., to E. & F. Constr. Co., 94 Wells St., Bridgeport, Est. **$175,000.** Fletcher Thompson, Inc., 211 State St., Bridgeport, archt.

Conn., West Haven—FACTORY—Armstrong Rubber Co., 475 Elm St., 2 story, 60 x 100 ft., rein.-con. factory, Elm St., to Edwin Moss & Son, Inc., 555 Grant St., Bridgeport, Est. **$70,000.** Fletcher Thompson, Inc., 211 State St., Bridgeport, archt.

Fla., Ft. Pierce — INSPECTION PIT and PLANT—Florida East Coast Ry. Co., c/o contractor, diesel engine inspection pit and plant, to Cleary Bros., West Palm Beach. Est. over **$68,000.**

Ga., Valdosta—SALES and SERVICE—Ware Motors, c/o Felton Davis, archt., 1501 Slater St., auto sales and service bldg., to A. C. Samford, Inc., Albany. Est. **$45,000.**

Ill., Chicago—PLANT—Belden Mfg. Co., 4647 W. Van Buren St., 1 story, brick, steel plant, to Elmo L. Ward, 4722 W. Arthington St. Est. **$75,000.** Fred Dolke, 189 W. Madison St., archt.

Ill., Chicago—FACTORY—De Mert & Dougherty, 3001 W. 47 St., Engr., Samuel, concrete factory, 4800 S. Richmond Ave., to W. E. Boyington, 1625 W. 75 Pl. Est. **$400,000.** Morris L. Komar, 7756 S. Marshfield Ave., archt.

Ill., Chicago—FACTORY—Stattin Bros. Furniture Co., 2127 W. Ogden Ave., 1 story, brick, cement factory, separate contracts. **$88,000.** Emil L. Larson, 4814 N. Damen Ave., archt.

Minn., Rochester—WAREHOUSE, etc.—Peoples Co-operative Power Assn., 1 story, 99x175 ft. warehouse, office, garage, to Kallestad Constr. Co., 4800 Cyndale Ave. N., Minneapolis. **$147,000.** CD 1/26—ENR 2/3.

Miss., Canton—SALES and SERVICE—T. Ray, c/o contractor, farm machinery sales and service bldg., to Stanley W. Newman Co., P. O. Box 1565, Mobile Ala. Est. **$75,000.**

N. Y., Huntington — PLANT — Telephonics Corp., 350 W. 31 St., New York, Zone 1, plant for mfg. electronic, acoustic and communications equip., to Brown & Matthews, Inc., 122 E. 42 St., New York, Zone 17. Est. **$207,000.**

N. C., Durham—LABORATORY—Liggett-Meyers Tobacco Co., Durham, research laboratory, to J. A. Jones Constr. Co., 209 W. 5 St., Charlotte. Est. **$300,000.** Bids 12/13. CD 11/29—ENR 12/9.

O., Toledo—BUS TERMINAL—Greyhound Corp., 420 Jefferson St., bus terminal, Jefferson Ave. between Michigan and Ontario Sts., to A. Bentley & Sons Co., 201 Belmont St. Est. **$400,000.** CD 7/8—ENR 7/15.

●**Okla., Marlow**—PLANT—Magnolia Petroleum Co. & Assoc., Magnolia Bldg., Dallas, design and construction natural gasoline plant, Sholem Alechem field, to Jones & Laughlin Supply Co., 108 N. Trenton St., Ruston, La. Approx. **$5,500,000.**

Ore., Pendleton—PLANT—Pendleton Grain Growers, S. W. Dorian and 8th Sts., 60x80 ft., rein.-con., structural steel feed and seed plant, to Remette Constr. Co., 131 University Ave., Palo Alto, Calif., **$69,000.**

R. I., West Warwick—MILL—Owner, c/o general contractor, 1 story, cinder block mill addn., to Louis Samson, 202 New London Ave. Est. **$68,000.**

Tex., Dallas — WAREHOUSE — **Marsh Steel** Corp., 4020 Hancock St., warehouse, Purchase and Hire. **$70,000.**

Tex., Houston — WAREHOUSE — Damon Wells, 2107 McKinney St., warehouse, own forces. **$90,000.** CD 11/24—ENR 12/2.

Tex., San Antonio—SILO—Peaslee-Gaulbert Corp., 1324 Flores St., 70,000 sq. ft. shop addn. loading docks to G. W. Mitchell, 612 American Hospital and Life Bldg., Approx. **$85,000.** B. Cocke, 3501 Broadway, archt.

Utah, Saltair—PLANT—Solar Crystal Salt Co., Saltair, design and construction 5 story, steel processing plant, to Indenco Engineers & Builders, 656 31 St., Oakland, Calif. Est. **$500,000.**

Wash., Vancouver — WAREHOUSE—Bemis Paper Bag Co., 1401 W. 26 St., roll paper warehouse, rein.-con. with corrugated steel siding, to Ross B. Hammond Co., 1241 N. Williams St., Portland, Ore. Est. **$90,000.**

W. Va., Charleston—SALES and SERVICE—Elk Land Co., c/o Francis George Davidson, archt., 702 Viewmont Terrace, auto sales and service bldg., to H. B. Agsten & Sons, Inc., United Carbon Bldg. Est. over **$75,000.**

Wis., Milwaukee — TRAIN SHED — Miller Brewing Co., 4002 W. State St., Zone 8, 1 story, 77x92x91 ft., concrete, steel, brick train shed bldg., concrete fdn., to Selzer-Ornst Co., 6222 W. State St., Wauwatosa, Zone 13. Est. **$150,000.** L. Peterson & Assoc., 312 E. Wisconsin Ave., Zone 2, engrs.

B. C., Vancouver—PLANT—Monsanto (Canada) Ltd., 1701 W. Broadway, 1 and 3 story, concrete, steel plant, to Northern Constr. Co. & J. W. Stewart Ltd., 736 Granville St., **$190,000.** Awarded 2/12. Pearson & Phillips, 1701 W. Broadway, engrs.

N. B., Woodstock—LEAD DRILLING, etc.—Kayrand Mining & Development Co. Ltd., Woodstock, drilling lead and zinc properties. Owner builds. **$100,000.**

North West Territories, Great Slave Lake—DIAMOND DRILLING—Consolidated Asotria Mines Ltd., Great Slave Lake, diamond drilling, Indian Mountain Lake area, to James McAvoy, c/o owner. Est. **$60,000.**

Ont., Brantford — WAREHOUSE — Brewers Warehouse Co. Ltd., 350 Bay St., Toronto, 2 story, 70x270 ft., concrete, steel, brick warehouse, to Cromar Constr. Co. Ltd., 448 Colborne St. Est. **$150,000.** CD 12/15—ENR 12/30.

●**Ont., Hamilton**—WAREHOUSE, etc.—Canadian Westinghouse Co. Ltd., 286 Sanford Ave. W., 5 story, 110x220 ft. steel, brick warehouse, office and garage, to Pigott Constr. Co. Ltd., Pigott Bldg., Approx. **$1,300,000.** Bids 2/18. CD 2/9—ENR 2/17.

Ont., Sturgeon Falls — PLANT — Abitibi Power & Paper Co. Ltd., Sturgeon Falls, plant addn., to Carter Constr. Co. Ltd., 419 Cherry St., Toronto. Est. **$80,000.**

Ont., Toronto — FACTORY — Easy Washer Machine Co., 14 Miranda Ave., 1 story, concrete, steel, brick factory addn., to Gatehouse Bros. Ltd., 86 E. Adelaide St., **$75,000.**

Ont., Toronto—MACHINE SHOP—R. Reininger, 27 Bathurst St., concrete, brick machine shop, Dohme Ave. Owner builds, **$70,000.**

Ont., Toronto — SUB-STATION — Toronto Transportation Comn., 35 Yonge St., 24x65 ft. concrete, brick automatic sub-station, Annette St., to J. S. Laxton & Son, 1880 St. Clair St., **$70,000.**

Sask., Saskatoon—PLANT—Mid City Motors, Ltd., Second Ave. and 19 St., 70 x 200 ft. plant, Fourth Ave. and Twentieth St., to Webster & Gilbert, Canadian Pacific Railroad Bldg., and H. J. Ruby & Sons, 1010 Lorne Ave. Approx. **$125,000.**

UNCLASSIFIED

BIDS ASKED

March 14

N. Y., Brooklyn — PARKS — Comrs. Park, Dpt. Parks, Arsenal Bldg., Central Park, 64 St. and 5 Ave., New York, Zone 21, constructing play area at McKinley Park; playground at Linton Park and addn. to playground at E. 38 St. and Avenue M, Brooklyn Boro, Contr. B-60-149. Plans deposit $20. CD 8/3/45—ENR 8/23/45.

March 16

†**Conn., Canaan**—GAS HOLDER—Pub. Bldgs. Admin., Distr. Engr., Post Office, Boston, Mass., gas holder.

Pa., Scranton—WIRING, etc.—Dpt. Property & Supplies, 18 and Herr Sts., Harrisburg, general repairs to electric wiring, repairing fire alarm sys.; repairing emergency lighting sys. at Pennsylvania Oral School for the Deaf. Plans deposit $5. von Storch & Pearce, 506 Spruce St., archts. A. F. Jones, c/o owner, ch. engr.

March 18

Arkansas—RURAL DISTRIBUTION LINES —Ouachita Rural Electric Co-operative, Camden, 212 mi. rural distr. lines in Bradley, Calhoun, Callas and Ouachita Counties, Pepper & Matthews, 211½ Main St., Yazoo City, Miss., engrs. CD 2/16—ENR 3/3.

March 21

Ky., Lexington—STADIUM—University of Kentucky, Lexington, McLean Stadium extention, Stoll Field, University of Kentucky. Plans deposit $50. Extended date. J. B. Rieman, ch. engr. CD 10/12.

†**Me., Augusta**—CHAIN LINK FENCE—U. S. Eng., Bldg. 7, Camp Keyes, Augusta, installing chain link fence, Camp Keyes, Serial No. MNG 17-018-49-02.

N. Y., Great Neck Estates—SWIMMING POOL, etc.—Bd. Trustees, Village of Great Neck Estates, 160 Middle Neck Rd., Great Neck, 50x100 ft. swimming pool and bathhouse. Plans deposit $20. Seelye, Stevenson & Value, 101 Park Ave., New York, Zone 17, consult. engrs.; adv. ENR 3/10.

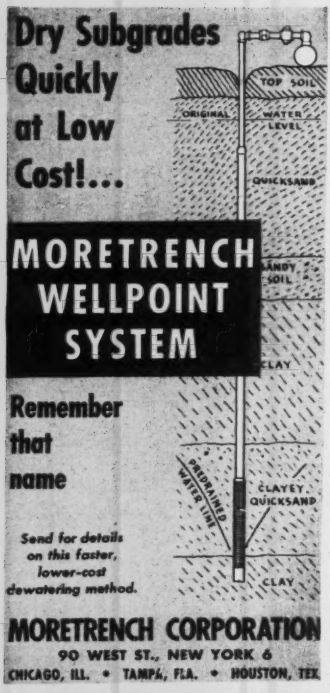
March 22

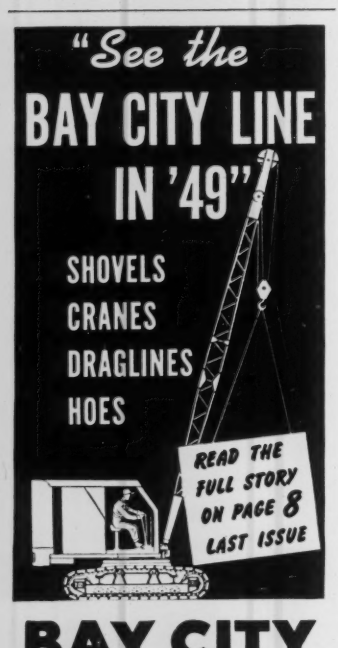
†**Tennessee**—ELECTRICAL EQUIP.—U. S. Eng., 303 U. S. Courthouse Nashville, 1, Tenn., accessory electrical equip. for Center Hill Powerhouse, Caney Fork River, De Kalb Co., Serial No. ENG 40-058-49-69. Extended date. CD 2/23.

March 23

†**Kentucky**—CEMETERY REMOVAL—U. S. Eng., 303 U. S. Courthouse, Nashville, Zone 1, Tenn., removing 66 cemeteries, Wolf Creek Reservoir Proj., Russell, Clinton and Wayne Counties, Serial No. Eng. 40-058-49-68. Plans deposit $5.

N. Y., St. George—INTERLOCKING SYSTEM, etc.—Comr. Marine & Aviation, Pier A, North River, foot of Battery Pl., New York Zone 4, installing railroad signalling





and interlocking sys. in terminal of the Staten Island Rapid Transit Ry. Co. at St. George Ferry Terminal; reconstructing terminal and approaches at St. George Ferry Terminal, Contr. 2627 R. Plans deposit $12. CD 11/22—ENR 12/2.

March 24

†N. Y., Brooklyn—PIER DECKING, etc—Pub. Wks. Office, Bldg. 77, New York Naval Shipyard, Naval Base, Zone 1, repairing decking, fenders sys. and crane column footings of Big Meany Pier at the New York Naval Shipyard, Naval Base, Spec. 20986. Plans deposit $10.

†Wyoming and Nebraska — OVERHEAD GROUND WIRES—Bureau Reclamation Dpt. Interior, 504 Conroy Bldg., Casper, Wyo., installing overhead ground wires on The Cheyenne-Gering 115 kilovolt transmission line, Kendrick Proj., between Gering, Neb. and Cheyenne, Wyo., Spec. 2584.

March 30

†Washington—RAILROAD RELOCATION—U. S. Eng., 19 E. Poplar St., Walla Walla, relocating 178 mi. sect. of Spokane, Portland & Seattle Ry. Extended date. CD 2/16—ENR 2/24.

March 31

†Colorado—TRANSMISSION LINES—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, constructing Wiggins-Hoyt 115 kilovolt transmission lines, Colorado-Big Thompson Proj., between Wiggins and Hoyt, Morgan Co., Spec. 2570. L. N. McClellan, ch. engr.

April 1

Kentucky—RURAL DISTRIBUTION LINES—Warren Rural Electric Co-operative, State and 8 Sts., Bowling Green, 265 mi. rural distr. lines, Warren Co.

April 7

†Alaska, Whittier—OUTSIDE UTILITIES—U. S. Eng., Pier 51, Seattle, Wash., outside utilities, Inv. S 95-507-49-18. Extended date.

SOON LETS CONTRACT

Fla., Miami Beach—SWIMMING POOL—Green Brier Hotel, c/o L. Murray Dixon, archt., 605 Lincoln Rd. Bldg., soon lets contract swimming pool.

LOW BIDDERS

†Arizona—Nevada—CONDENSER, etc—Bureau Reclamation, Dpt. Interior Bldg. 1-A, Denver Federal Center, Denver, Colo., Feb. 23, rein.-con. swimming pool on high school grounds, from Central California Constr. Co., 116 Erie St., San Francisco, **$299,689.** CD 1/26—ENR 2/3.

Calif., Los Angeles—PARK BLDGS.—Bd. Supervs. Los Angeles Co., 501 Hall of Records, Feb. 23, community center bldgs. at Laguna Park; Alondra Lake Park; John S. Simms Park; Lomita Park; Garvey Memorial Park; Belvedere Park; Lakewood-Pan American Park, from E. S. McKittrick, Inc., 7839 Santa Fe Ave., Huntington Park, **$413,526.** Est. $350,000. CD 2/2—ENR 2/10.

Calif., San Leandro—RUNNING TRACK—Bd. Educ., 1025 2 Ave., Oakland, Feb. 23, running track, grading and paving, from Ariss-Knapp, 961 41 St., Oakland, **$76,624.** CD 2/16.

●Ill., Chicago—SUBWAY—City Dept. Purchases, Supplies, & Contracts, City Hall, rejected bids Dec. 2, concrete floors, stairs, wall finishes, partitions, doors, etc., Dearborn St. Subway, Contr F-4. L. R. **$1,710,368.** CD 12/7—ENR 12/16, under LB.

La., Moreauville—GAS TRANSMISSION LINES—L. J. Mayeaux, mayor, Moreauville, Feb. 15, natural gas transmission line, distrsys., from Louisiana, Mississippi Pipe Line Constr. Co., Baton Rouge, **$86,673.** CD 2/2—ENR 2/10.

La., Maringouin—NATURAL GAS SYSTEM—Town, Town Hall, Feb. 18, natural gas sys., from Carruth Contg. Co., Louisiana National Bank Bldg., Baton Rouge, **$86,054.** CD 2/2—ENR 2/10.

Mo., St. Louis—STREET LIGHTING SYSTEM—City, Milton M. Kinsey, pres. Bd. P. Service, 304 City Hall, Zone 3, Feb. 23, repairs, maintenance municipal street lighting sys., from R. J. McManemin Co., 3025 Brentwood Blvd., Brentwood, St. Louis, Zone 17, **$552,303.** Est. $660,000. CD 1/24—ENR 1/27.

Nebraska—RURAL DISTRIBUTION LINES—Consumers Public Power Dist., Columbus, Feb. 14, transmission line from Oakland to Walthill, from Houk Constr. Co., 621 63 St., Des Moines, Ia., **$168,892.** CD 1/18—ENR 1/27.

N. C., Camp Lejeune (br. New Bern) — STATIC LINE—Pub. Wks. Officer, Bldg. 1005, Marine Barracks, overhead static line, Spec. 21478 from Thompson Electric Co., 301 N. Dawson St., Raleigh, **$94,232.** CD 1/5—ENR 1/13.

†Washington — STEEL TOWERS — Bonneville Power Admin., 729 N.E. Oregon St., Portland, Ore., Feb. 25, furnishing 230 kv. steel towers for Grand Coulee-Snohomish Line No. 2, Inv. 4486, from American Bridge Co., Frick Bldg., Pittsburgh, Pa., **$426,518.** CD 2/3—ENR 2/10.

CAST IRON BALLS

500 Lbs.	$ 62.50
1000 Lbs.	101.00
1500 Lbs.	132.50
2000 Lbs.	165.00
3300 Lbs.	231.00
4000 Lbs.	290.00

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Manhole Frames and Covers, Sewer Gratings, Centrifugal Pumps, Stokers—Industrial & Domestic, Gray Iron Castings—any weight.

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N. B., Little Shippigan—WHARF—Dpt. P. Wks., Hunter Bldg., Ottawa, Ont., Feb. 23, wharf, from J. W. Anderson, Burnt Church. Approx. **$65,767.** CD 2/7—ENR 2/17.

Que., Notre Dame du Portage—WHARF—Dpt. P. Wks., Hunter Bldg., Ottawa, Ont., Feb. 23, wharf reconstruction, from Hector Bouchard, La Malbaie. Approx. **$187,987.** R. Blais, c/o owner, engr. CD 2/7—ENR 2/17.

CONTRACTS AWARDED

Ill., Sandoval—DRIVE-IN THEATRE—Roland Robinson, et al, c/o Robinson IGA Grocery, Sandoval, drive-in theatre, separate contracts. Approx. **$80,000.**

Mass., East Boston—ELEVATED BUSWAY—City of Boston, Transit Dpt., 294 Washington St., Boston, 850 ft. elevated busway, rapid transit facilities, Airport Station, to J. A. Singarella Co., 15 Bay St., Dorchester, **$519,497.** Bids 2/21, awarded 2/24. CD 2/14—ENR 2/17.

Missouri—RURAL DISTRIBUTION LINES—Ozark Border Electric Co-operative, Poplar Bluff, 332.95 mi. rural distr. lines, Butler Co., to Hill Constr. Co., Scimeer, Tenn., **$323,631.** Swindell Eng. Co., City Light Bldg., Poplar Bluffs, engr. CD 6/26—ENR 7/8.

O., Columbus — TELEVISION STUDIO — Crosley Broadcasting Corp., 140 W. 9 St., Cincinnati, 2 story television studio and 572 ft. transmitter tower at 3165 Olentangy Rd. for WLW-C, to Ajax Constr. Co., Mercantile Library Bldg., Cincinnati.

Tex., Dallas — DISTRIBUTION LINES — Southwestern Bell Telephone Co., 308 S. Akard St., above ground line reconstruction and replacements, Purchase and Hire. **$250,000.** CD 2/3—ENR 2/17.

Tex., Kerrville—RADIO STATION—L. T. Davis & Assoc., Kerrville, radio station, incl. 200 ft. steel antenna, Purchase and Hire **$60,000.**

Tex., Kerrville—SOIL AND WATER CONSERVATION—Kerr County Agriculture Conservation Assn., c/o Guy Powell, sponsor, Kerrville, soil and water conservation program, incl. cross-fencing 313,500 rods, terraces, erosion control dams, livestock water wells, clearing and grubbing water lines, own forces. **$175,000.**

Alta., Calgary — DRIVE-IN-THEATRE — Owner, c/o contractor, drive-in-theatre, MacLeod Rd., to Standard Gravel & Surfacing Co. Ltd., 5340 First St., Est. **$150,000.**

Alta., Penhold—RURAL DISTRIBUTION LINES—Penhold Rural Electrification Assn., Red Deer, rural d/str. lines in area east of here. Owner builds. **$54,500.**

Que., Quebec City — WHARF — Dominion Govt., Ottawa, Ont., wharf, to Foundation Co. of Canada Ltd., 1900 Sherbrooke St., Montreal, **$495,708.** Bids 2/28. CD 2/24.

CONSTRUCTION REPORTS— Third Section

WATER SUPPLY

BIDS ASKED

March 24

Tex., Lubbock—City, W. H. Roberts, mayor, 16- to 30-in. c.i. distr. trunk watermains, $200,000. Bids 2/24 rejected, L. B. **$217,222.** CD 3/4—ENR 3/10, under LB.

March 25

Tex., Woodsboro—City, A. F. Sommer, mayor, WW sys. extens., imprvs. $55,000. Plans deposit $15. M. C. St. John, 319 West Bldg., Houston, engr.

March 28

Tenn., Erwin—Town, pump. stations and distr. sys. addns. Plans deposit $20. Wiedeman & Singleton, C. & S. National Bank Bldg., Atlanta, Ga., engrs.

March 30

Tex., Malakoff—City, J. D. Waller, mayor, water supply sys., incl., deep water well, 35,000 lin. ft. lines, water tower, 27 fire hydrants; distr. sys., 8 in. distr. line. $125,000. Royce E. Wisenbaker & Assoc., 1415 N. Dixie St., Tyler, engrs. CD 1/17—ENR 2/3.

LOW BIDDERS

Ga., Buchanan—City, rejected bids Feb. 14, WW improvs. L. B. **$47,606.** CD 2/21—ENR 2/24, under L. B.

CONTRACTS AWARDED

Tex., San Antonio—Water Bd. Dpt., San Antonio, installing 24 in. c.i. watermain from Coliseum Wells to New Braunfels Ave. and Montana St., Water towers, Purchase and Hire. **$110,000.** CD 10/5/45—ENR 10/18/45.

SEWERS, WASTE DISPOSAL

BIDS ASKED

March 20

●**Tex., Houston**—City, M. H. Westerman, secy., enlarging Northside Sewage Treatment Plant, constructing plant to mfg. fertilizer, $1,000,000. J. N. Nagle, city engr. CD 1/25—ENR 1/27, under LB.

March 21

Calif., Tiburon—Sanitary Dist. 5, Tiburon School, sewerage sys., appurtenances. Over $50,000. Plans deposit $10. Clyde C. Kennedy, 604 Mission St., San Francisco, engr. CD 9/18/47—ENR 10/2/47.

March 23

Tex., Houston—Houston Independent School Dist., 1600 Washington St., sewage disposal plant. $50,000. John G. Turney, 2405 San Jacinto St., engr.

March 25

Tex., Woodsboro—City, sanitary sewerage sys., imprvs. $60,000. M. C. St. John & Assoc., 319 West Bldg., Houston, engr.

March 28

Kan., Atwood—City, at office, L. H. Vieux, city clk., City Hall, sanitary sewer extens. Plan deposit $5. Wilson & Co., 223 N. Santa Fe St., Salina, engrs.

March 29

Kan., Baldwin—City, at office Mrs. E. C. Hall, city clk., City Hall, sewage disposal works. Plans deposit $10. Wilson & Co., 223 N. Santa Fe St., Salina, engrs.

April 12

●**Conn., Bridgeport**—City, Peter Brewster, dir. P. Wks., City Hall, Contr. 2, sewage disposal, sewage treatment plant, primary-sedimentation type, equip. for removal of grit and screenings, sewage pumping, sedimentation, skimming, chlorination and sludge disposal for vacuum filtration and incineration. East Side at Seaview Ave. and Walker St., $1,500,000. Plans deposit $25. Henry L. Rowland, City Hall, city engr. CD 6/21/45—ENR 7/12/45.

LOW BIDDERS

Calif., Redwood City—San Mateo Co., Courthouse, rejected bids Feb. 1, Crystal Springs Outfall Sewer, L.B. **$121,589.** CD 2/8—ENR 2/10, under LB.

Calif., San Francisco—Dpt. P. Wks., City Hall, Lake Merced sewer, Sect. C, Spec. 20,430, from M & K Corp., 405 Montgomery St., San Francisco, Frederick & Watson Constr. Co., 873 81 Ave., Oakland, and Piombo Constr. Co., 1571 Turk St., San Francisco, **$916,485.** CD 2/7—ENR 2/17.

BRIDGES

BIDS ASKED

STATE HIGHWAY LETTINGS

March 15	**March 23**
South Carolina	**California**
March 16	**March 24**
Maine	**California**
March 17	**March 30**
Virginia	**California**

LOW BIDDERS

●**Florida**—State Hy. Dpt., Tallahassee, Mar. 3, Southern Blvd. bridge, approaches at Lake Worth on Rd. 80, 9375-102 and 9375-103; and bridge, approaches to West Palm Beach Canal on Congress Ave. west of Palm Beach, constr. bridge over West Palm Beach Canal on Military Trail, Rd. No. 809, 9375-104 and 105, both Palm Beach Co., from Cleary Bros. Constr. Co., West Palm Beach, **$1,052,156** and **$99,578** respectively; 0.468 mi. approaches to Pablo Creek Bridge on Rd. 212, **7219-108, Duval Co.,** from Atlantic Dredging & Constr. Co., Satsuma, **$128,465.** CD 2/7—ENR **2/10.**

Iowa—State Hy. Comn., **Ames, Mar. 1,** 22x102 ft. continuous I-beam bridge, local road over Creek in Sect. 14-84-4E S 1301 (1), Jackson Co., from Iowa Bridge Co., Des Moines, **$129,671***** 22x190 ft. high truss bridge with two 22x50 ft. I-beam approach spans, County Trunk Rd. N, east of Malvern over West Nishnabotna River between Sects. 26 and 35, 72-41 ERS 19 (3), Mills Co., from Brogan Constr. Co., 307 Masonic Temple, Des Moines, **$87,139***** 24x222 ft. continuous I-beam bridge, County Trunk Rd. T just north of Overflow, between Sect. 20 and 21-82-46 and between Sects. 16 and 17-87-46, S-214 (1), Sioux Co., from Western Eng. Co., Harlan, **$93,909.** CD 2/16—ENR 2/24.

Kentucky — State Hy. Dpt., Frankfort, rejected bids Feb. 25, bridge, 0.125 mi. approaches, Grayson-Sandy Hook Rd., S 268 (9), SP 22-68, Carter Co., L. B. $119,307. CD 2/9—ENR 2/17, under LB.

†**Md., Chesapeake City**—U. S. Eng., 121 North Broad St., Phila., Pa., **Mar. 1,** approaches to Chesapeake City Bridge, Serial No. Eng. 36-109-49-83, from George & Lynch, 18 and Broom Sts., Wilmington, Del., **$104,985.** CD 2/23.

CONTRACTS AWARDED

Washington—State Hy. Dpt., Olympia, rein.-con. arch. bridge on Long Lake on Secondary State Hy. No. 3-J, incl. clearing, grading, draining approaches, Lincoln and Stevens Counties, to Henry Hagman, Cashmere, **$233,698;** rein.-con. overcrossing structure on Marshall Rd. with grading, surf. 1,198 mi. approaches, FAS S-0462 (1), Spokane Co., to Clifton & Applegate, Box 1473, Spokane, **$212,626.** CD **2/17—ENR 2/24, under Streets and Roads.**

STREETS AND ROADS

BIDS ASKED

STATE HIGHWAY LETTINGS

March 15	**March 22**
Maryland	**Texas**
Massachusetts	**March 23**
South Carolina	**California**
March 17	**Louisiana**
Virginia	**Texas**
March 18	**March 30**
Minnesota	**California**
Washington	**March 31**
	California

March 14

Va., Roanoke—City, c/o City Engr., 107 Municipal Bldg., concrete sidewalks and streets. Over $50,000. CD 6/30/44—ENR 7/13/44.

March 15

Kan., Lebanon—City at office J. E. Post, city clk., City Hall, imprv. streets 3,500 cu. yd. earth excav., 5,000 lin. ft. curb and gutter, 102 lin. ft. double gutter, 360 sq. yd. valley gutter, 3,450 tons stabilized base, 32,600 gal. bit. material, etc. Plans deposit $10. Wilson & Co., 223 N. Santa Fe St., Salina, engrs.

March 22

†**Nevada**—Pub. Roads Admin., Heroes Memorial Bldg., Carson City, 11.629 mi. highway imprvt., Nevada FH-6 B, Danzell Canyon, Toiyabe National Park, Lyon Co. Plans deposit $10. CD 1/27—ENR 2/3, under LB.

March 28

Tex., Houston—Harris Co., Courthouse, asph. 2.98 mi. Stella Link Rd. $100,000; 4.9 mi. Toddville Rd., $125,000; 3.57 mi. Ramsey Rd. $90,000. Hugo Zapp, co. engr. CD 1/27—ENR 2/3.

†**Alaska**—Pub. Roads Admin., Juneau, surfacing 2.6 mi. Tongass Hy., Alaska Forest Hy. Project. 1-CD, D7. Plans deposit **$10.** CD **1/6—ENR 1/20.**

LOW BIDDERS

California—State Div. Hys., Sacramento, Mar. 2, plant mix. surf. and wid'n. sliders with plant mix. on crusher run surf. with Class C medium seal coat, apply penetration treatment 6.1 mi. between Ford Rd. and Morgan Hill, Santa Clara Co., from McGillvray, Const. Co., Box 873, Sacramento, **$104,562.** CD 2/9—ENR 2/17.

Iowa—State Hy. Com., Ames, grading 9.247 mi. local road from point on east line of N.W. ¼ Sect. 23-84-4 E. northwesterly 9.351 mi. to Iot. 62 near N.E. corner Sect. 34-85-3E, S-1301 (1), Jackson Co., from Lowe Constr. Co., Marion, **$102,967***** stabilized base and bit. surf. 13.081 mi. County Trunk Rd. D from Webb to Dickens S-205 (2) Clay Co., from Jay W. Craig, 1815 N.E. California St., Minneapolis Minn., **$127,958***** surf. 22.625 mi. various sections farm-to-market Rd. 18, separate Sects. F.M. 97, Poweshiek Co., from Concrete Materials & Constr. Co., 405 Granby Blvd., Cedar Rapids, **$61,185.** CD 2/16—ENR 2/24.

CONTRACTS AWARDED

Nebraska—State Dpt. Road & Irrigation, Lincoln, grading, culverts, bridge, S-17—3, 4, and 6, Newport-Jamison, Rock and Keya Paha Counties, to Thieson Bros., Osmond, **$76,887.** Bids 1/20. CD 1/7—ENR 1/13.

Tex., Pasadena—City, Sam Hoover, mayor, 7 in. conc. paving, to Pyramid Constr. Co., Pasadena, **$121,523.** CD 1/19—ENR 1/27, under LB.

EARTHWORK, WATERWAYS

BIDS ASKED

March 16

Ia., Carroll — Carroll Co., Carroll, cleanout drainage ditches $40,000. M. L. Schmeiser, co. engr.

Md., Baltimore—Mayor & City Council, City Hall, maintenance and other dredging, Baltimore Harbor, Patapsco River and tributaries. Plans deposit $5. Clarence R. Tull, ch. engr.

March 18

†**Montana**—Bureau Reclamation, Dpt. Interior, Billings, canal and laterals, Savage Pumping Plant, Missouri River Basin Proj., Spec. R6-26 (Region 6). Extended date. L. N. McClellan, Bldg. 1a, Denver Federal Center, Denver, Colo., ch. engr. **CD 2/23.**

†**New York**—U. S. Eng., Engineer Park, Buffalo, Zone 7, furnishing, installing elevator, Mt. Morris Reservoir Flood Control Proj., Genesee River, Inv. Eng.-30-023-49-26. Extended date. CD 2/10—ENR 2/17.

March 24

†**Texas**—U. S. Eng., foot of Prytania St., New Orleans 9, La., snagging and clearing Mile 7.8 to Mile 24.5 Little Cypress River, Marion and Harrison Counties, Serial No. Eng.-16-047-49-221. Extended date. CD 2/8—ENR 2/10.

March 31

†**Wyoming-Nebraska**—Bureau Reclamation, Dpt. Interior, 504 Conroy Bldg., Casper, abutment and foundation grouting of Pathfinder Dam, North Platte Proj., on the North Platte River about 47 mi. southwest of Casper, Spec. 2599.

April 7

†**Wyoming-Nebraska**—Bureau Reclamation, Dpt. Interior, 504 Conroy Bldg., Casper, grouting Fort Laramie Canal, North Platte Proj. approx. 7 mi. southwest of Torrington, Spec. 2600.

LOW BIDDERS

†**Iowa**—Soil Conservation Service, 440 N. Port Washing Rd., Milwaukee, Wisc., Feb. 16, cleaning, widening ditch in Little Sioux Basin, from Claussen-Olson-Benner, Inc., Holdrege, Neb., **$118,923.**

●†**North Dakota**—U. S. Eng., Fort Lincoln, Box 300, Bismarck, Mar. 3, tunnels for Garrison Dam Proj., Missouri River, Eng.-32-015-49-60, from S. A. Healy Co. & Material Service Corp., 61 Westchester Ave., White Plains, N. Y. **$15,217,975.** CD 2/7—ENR **2/24.**

Pennsylvania—Dpt. Forests & Waters, 463 Education Bldg., Harrisburg, Mar. 3, flood control and recreation dam to cover approx. 1,082 acres, on Shawnee Branch of Raystown Branch of the Juniata River, at Napier, Bedford Co., from Latrobe Constr. Co., Latrobe, **$584,732.** Est. $1,200,000. CD 2/15—ENR 2/17.

†**Wash., Tacoma**—U. S. Eng., 4735 E. Marginal Way, Seattle, Zone 4, Mar. 1, maintenance dredging city waterway, Tacoma Harbor, Serial No. Eng.-45-108-49-120, from Foss Launch & Tug Co. and Columbia Dredging Co., 200 East F St., Tacoma, **$52,882.** Est. $40,000. CD 2/15—ENR 2/17.

CONTRACTS AWARDED

●†**California**—Bureau Reclamation, Dpt. Interior, Redding, completing Keswick Dam and power plant on Sacramento River, Central Valley Proj., Spec. 2479, to C. M. Elliott & John C. Gist, 1020 46 St., Sacramento, **$1,239,899.** Bids 2/9, awarded **2/28. CD 2/15—ENR** 2/17, under LB.

La., Lake Charles—Police Jury, Calcasieu Parish, Lake Charles, 754,900 cu. yd. channel excav., to Delta Drainage & Constr. Co., Greenville, Wis., **$112,254.** Bids 3/1, awarded 3/14. CD 2/23.

†**Washington**—U. S. Eng., 4735 E. Marginal Way, Seattle, Zone 4, dredging Bay Center channel, Willapa Harbor, to H. G. Palmberg, Astoria, Ore., **$37,388.** Est. $35,360.

AIRPORTS AND AIRBASES

BIDS ASKED

April 5

†**S. D., Sioux Falls**—INSTRUMENT LANDING SYSTEM—Civil Aeronautics Admin., 414 E. 12 St., Kansas City, Mo., instrument landing sys. at municipal airport.

LOW BIDDERS

Kan., Pittsburg — AIRPORT BLDG. — City, City Hall, Feb. 23, administration bldg.; from George E. Baumann, 713 E. Austin St., Nevada, Mo., **$62,418.** A. M. Scott, Hotel Besse, archt.

PUBLIC BUILDINGS

BIDS ASKED

March 15

†Colorado—Bureau Reclamation, Dpt. Interior, Bldg. 1-A, Denver Federal Center, Denver, 750-kva substation at Haxton, Colorado-Big Thompson Proj., Spec. 2549. Extended date. L. N. McClellan, c/o owner, ch. engr. CD 2/10—ENR 2/17.

Ky., Frankfort—Franklin Co., Frankfort, auditorium, gymnasium addn., improvs. to Thornhill School, John F. Wilson, Wellington Arms Apts., Lexington, archt. CD 4/15/47—ENR 5/1/47.

N. C., Greenville—Greenville Utilities Comn., J. H. Blount, chn., Greenville, power plant equip. and addns. to Municipal Power Plant, Sect. 1, boiler and turbine rooms addns. alterations; Sect. 2, steel, concrete fdns. for new turbine; Sect. 3, fuel handling equip. Plans deposit $20. Wm. C. Olsen, 5 Exchange Pl., Raleigh, engr.

N. C., Raleigh—City, Roy S. Braden, mgr., motor vehicle maintenance depot. Plans deposit $25. Bernard Crocker, Jr., Lawyers Bldg., consult, engr.

March 21

Tenn., Union City—Obion Co., hospital, $650,000. Extended date. J. Frazier Smith, Inc., 165 Madison Ave., Memphis, archt. CD 2/15—ENR 2/17.

March 22

Calif., Los Angeles—State Div. Architecture, P. Wks. Bldg., Sacramento, completing Los Angeles Exposition Bldg. Plans deposit $25. Anson Boyd, state archt.

March 23

Conn., Rocky Hill—State, Raymond S. Thatcher, comptroller, State Capitol, Hartford, 3 story, basmt., brick, concrete dormitory at U. S. Veterans Home, $250,000. Plans deposit $25. CD 2/8/44—ENR 2/10/44.

Md., Baltimore—Mayor & City Council, City Hall, brick, steel, concrete dispensary bldg., 4940 Eastern Ave., Baltimore City Hospitals, **$100,000.** Plans deposit $100. R. E. Williams, 410 Municipal Bldg., constr. engr. CD 6/21—ENR 7/7.

March 25

Mass., Dedham—Town, Dedham Housing Auth., 381 Washington St., housing, State Aid Housing 200-1. Over $250,000. Plans deposit $50, refundable. E. I. Leeds & Assoc., Inc., 153 Brighton St., Allston, archt.

Tenn., Memphis—Bd. Educ., c/o E. L. Harrison, archt., 193 S. Idlewood St., gymnasium at Central High School. CD 6/1/43—ENR 6/3/43.

Wash., Longview—School Dist. 122, High School Bldg., school, **$250,000.** Plans deposit $25. Wolff & Philips, Pearson 4th Ave. Bldg., Portland, Ore., archts. CD 11/25—ENR 12/9.

March 29

Ia., Des Moines—Bd. Educ., Des Moines, Benjamin Franklin Junior High School, **$650,000.** Tinsley, Higgins & Lighter, Liberty Bldg., archts. CD 2/18.

March 31

Fla., Jacksonville—City Utilities Bldg., Laura St. S., furnishing No. 2 Power plant on Southside, Item 1, 200,33,2000,2500 and 3750 kva. single phase transformers, 26.4-13.2/2400 volts; Item 2, 200,300 and 500 kva, three phase auto-transformers, 4160/2400 volts. Reynolds, Smith & Hill, 227 Park St., engrs.

April 4

Ia., Ames—City, power plant and distr. improvs., Contr. 16, furnishing, structural and ornamental iron; Contr. 17, constr. materials and power plant bldg. Burns & McDonnell Eng. Co., 95 and Troost Sts., Kansas City, Mo., engr.

Bids Asked

†R. I., Pawtucket—U. S. Eng., Bldg. 21, Naval Drydocks, South Boston, Mass., 1 story masonry storage bldg. for motor vehicles.

Que., Ormstown—Ministry of P. Wks., Province of Quebec, Quebec City, garage, $100,000. Gabriel Lecavalier, Ormstown, engr.

LOW BIDDERS

Ind., Salem—Washington Co., Courthouse, Feb. 25, general contract 28-bed hospital, from J. D. Jennings Corp., 204 E. Lee St., Louisville, Ky., **$302,900.** CD 2/16.

Ind., Tell City—Perry Co., Tell City Feb. 23, 28-bed hospital, from J. D. Jennings Corp., 204 E. Lee St., Louisville, $312,900. CD 2/17.

Ky., Russellville—Logan Co., Russellville, Feb. 23, hospital, from Leo C. Miller, 332 E. Bloom St., Louisville, **$297,731.** CD 2/8—ENR 2/10.

†Mass., Boston—U. S. Eng., Bldg. 21, U. S. Naval Dr. dock, South Boston, cancelled bids to have been opened Mar. 25, 1 story, 48x234 ft. masonry motor vehicle storage bldg. CD 2/21—ENR 2/10.

†Mass., Fall River—U. S. Eng., Bldg. 21, U. S. Naval Drydocks, South Boston, cancelled bids to have been opened Mar. 25, 1 story, 55x185 ft. wing, 30x45 ft. masonry storage bldg. CD 2/21—ENR 3/10.

†Mass., Taunton—U. S. Eng., Bldg. 21, U. S. Naval Drydock, South Boston, cancelled bids to have been opened Mar. 25, 1 story, 42x122 ft. masonry storage bldg. CD 2/21—ENR 3/10.

Mo., Cape Girardeau—Southeast Missouri State College, c/o Bd. Regents, Cape Girardeau, and Wm. L. Smith, state purch. agt., 105 State Capitol, Jefferson City, Mar. 2, general contract 2 story, 107x169 ft. wing, 52x80 ft., 17x76 ft., and 28x107 ft., concrete physical and health bldg. (field house), from L. & R. Constr. Co., 6609 Latta Pl., **$369,995.** CD 2/2—ENR 2/10.

Mo., Fulton—Dpt. P. Health & Welfare, Sam Marsh, dir., State Office Bldg., Jefferson City, and John E. Powell, dir. P. Bldgs., State Capitol, Jefferson City, Feb. 25, 2 story, 40x280 ft. and 40x88 ft., and 40x94, 30x94 story, 40x94 ft., brick, concrete employees dormitory, State Hospital I, from McCarthy Bros. Constr. Co., 4903 Delmar Blvd., St. Louis, Zone 8, **$409,800.** Est. $400,000. CD 2/11—ENR 2/17.

N. C., Lenoir—Caldwell Memorial Hospital, Inc., S. B. Triplett, pres., Lenoir, Mar. 2, 100 bed hospital, from McDevitt & Street, Builders Bldg., Charlotte **$618,000.** CD 2/1—ENR 2/10.

Alaska, Fairbanks — Alaska Road Comn., Juneau, Feb. 15, 2 story, 60x136 ft. garage, from R. W. Slater, Fairbanks, **$367,600.**

CONTRACTS AWARDED

D. C., Wash.—District Comrs., District Bldg., Wash., Zone 25, Stanton Elementary School, Alabama Ave. and Naylor Rd. S.E., to John Tester & Son, Inc., 1437 Eye St. N.W., **$624,982.** Bids 2/1, awarded 3/3. CD 2/28.

●†D. C., Wash.—Pub. Bldgs. Admin., 18 and F Sts. N.W., Wash., D. C., General Accounting Office Bldg., G and H Sts. between Fourth and Fifth Sts. N. W., to John Meshain, Inc., 17 and Spring Garden Sts., Phila., Pa., **$21,635,500.** Bids 1/26, awarded 2/28. **(Correction**—price). CD 3/2—ENR 3/10, under CA.

N. C., Charlotte—Bd. School Comrs., J. M. Dunlap, bus. mgr., City Hall, Chantilly School, to Laxton Constr. Co., 127 Brevard Court, **$253,501.** Bids 3/1. CD 2/15—ENR 2/17.

N. C., Clinton—Sampson Co., Clinton, hospital, to Rogers Constr. Co., Smithfield, **$627,500.** Bids 2/18. CD 2/23—ENR 3/3, under LB.

●Tex., Houston—Houston Independent School Dist., 1600 Washington St., Wheatley (Negro) High School, to Farnsworth & Chambers, P. O. Box 74, **$1,820,772.** Bids 2/17. CD 2/23—ENR 3/3, under LB.

●Wash., Seattle—City, County-City Bldg., Zone 4, Mar. 2, City Light Gorge powerhouse and complete penstock tunnel addn., from Guy F. Atkinson Co., 16 W. Orange Ave. S., San Francisco, Calif., **$3,188,268;** 230 kv. transmission line from Seattle to Renton, from Associated Electric & Mechanical Co., 223 Clara St., San Francisco, Calif., **$254,680.** CD 2/14—ENR 2/17.

●†Wash., Seattle — Federal Reserve Bank of San Francisco, National Bank of Commerce Bldg., Zone 2, 4 story, rein.-con. bldg. to house Seattle Branch, to Kuney Johnson Co., 225 9 Ave. N. **$2,584,000.** Bids 2/23. CD 3/2—ENR 3/10, under LB.

●Wash., Seattle — School Dist. 1, 810 Dexter Ave., 1 and 2 story, concrete, masonry Northeast Junior High School, to J. G. Watts Constr. Co. & S. Birch & Sons Constr. Co., 2315 Western Ave., **$1,545,000.** Bids 2/16. CD 2/21—ENR 3/3, under LB.

Wyo., Torrington—School Dist., 3 Goshen Co. Bd. Trustees, Ivalee Shain, clk., Torrington, 1 story, basmt., 51x166 ft. and 91x225 ft. school, to Shoquette Lumber & Building Co., Laramie, **$269,694.** Bids 2/24, awarded 2/26. CD 1/25—ENR 1/27.

●†Alaska—Civil Aeronautics Admin., Anchorage, housing on Annette Island, to Bergesen & McPhail, Route 10, Box 971, Tacoma, Wash., **$566,914.** CD 2/16—ENR 2/24, under LB. Bids 2/7. CD 1/20—ENR 1/27.

†Alaska, Fort Richardson—U. S. Eng. (APO 942, c/o P.M., Seattle, Wash.), Anchorage, warm-storage motor pool bldg., to Patti-Mac-Donald Constr. Co., 1340 Admiral St., Kansas City, Mo., **$270,490.** Est. $298,151. Bids 3/1. CD 2/8—ENR 2/10.

COMMERCIAL BUILDINGS

BIDS ASKED

Spring

Ia., Dubuque—Finley Hospital, J. M. McDonald, Jr., chn. Bd. 12 and Pine Sts., 6 story, basmt., 44x127 ft., rein.-con., brick, steel, stone hospital addn., 1596. Delphi Sts., bids 2/5 rejected, L.B. **$390,000.** Wetherell & Harrison, Shops Bldg., Des Moines, archts. CD 2/19—ENR 2/26, under L.B.

April 16

Tex., Marshall—First Methodist Church Congregation, Marshall, church, **$250,000.** Shirley Simons, 6 and Broadway, Tyler, archt.

Bids Asked

Que., Stanbridge—R. Blanchet, archt., 53 d'Auteuil St., Quebec City, church, for Roman Catholic Parish of St. Ignace, Stanbridge, $300,000.

LOW BIDDERS

Fla., Tallahassee—First Baptist Church, c/o Prentiss Huddleston & Assoc., archts., 212 N. Adams St., rejected bids Feb. 25, educational bldg., L.B. **$319,000.** CD 3/4—ENR 3/10, under LB.

●Ill., Libertyville—Illinois Bell Telephone Co., 212 W. Washington St., Chicago, 2 story, bsmnt., brick telephone bldg., from Kaiser Ducett Co., 80 E. Jackson St., Chicago. Est. **$1,250,000.** Awarded 3/2. Holabird, Root & Burgee 180 N. Wabash St., Chicago, archts.

Tex., Austin—East Side Investment Co., c/o Max Brooks, pres., 121 E. 8 St., 12 story bsmnt, 210-room hotel, 3 story office, masonry, concrete, steel, from Rex. D. Kitchens, 608 W. Monroe St., **$903,323.** Bids 3/4. CD 2/7—ENR 2/10.

CONTRACTS AWARDED

●Calif., Daly City—Henry Doelger, 320 Judah St., San Francisco, (1st unit), incl. 680 two and three bedroom detached residences of eventual $110,000,000 residential and commercial and business development project, incl. 4,000 single family bldgs., 300 duplex bldgs., 25 six story apartments and complete business district on 800 acre site on Alemany Blvd. Juniper, Serra to Lake Merced. Over **$5,000,000.** Owner builds. CD 3/3/47—ENR 3/13/47.

Calif., Millbrae—Max Schmidt, 140 Roblar Ave., San Mateo, four 12 unit apartments and two 6 unit apartments on Hy. 101. Owner builds. **$750,000.**

Ill., Chicago—Messiah Lutheran Church, 6201 W. Patterson St., brick, stone church, separate contracts. **$250,000.** Herbert A. Brand, 400 W. Madison St., archt.

Ind., Kokomo—Jack Aldridge Relator & Builder, Kokomo, 40 houses, Virginia and Jay Sts. Owner builds. **$275,000.**

N. C., Winston-Salem—E. N. Richards & Thomas Wilson, 31st St., 35 apartments. Owner builds. **$800,000.**

Tenn., Copperhill—Tennessee Copper Co., Copperhill, office, to Christian & Bell Co., 664 Spring St. N. W., Atlanta, Ga., **$253,611.** Bids 2/16. CD 2/7—ENR 2/10.

Tex., Garland—Trigg Bell, 1561 El Camp St., Dallas, frame dwellings, concrete fdns. Owner builds. Approx **$275,000.** CD 2/25.

●Tex., Houston—Oak Forest Constr. Co., c/o P. S. Luttrell, 2230 Albans St., 297 addnl. dwellings, Part of Sect. 3 of Oak Forest, own forces. Approx. **$2,300,000.** CD 2/11—ENR 3/3.

INDUSTRIAL BUILDINGS

BIDS ASKED

March 17

Ala., Guin—WAREHOUSE, etc.—Tomingee Electric Co-operative, Guin, warehouse and office. Plans deposit $20. Hudson, Gilmore & Campbell, Bartlett Bldg., Montgomery, archts.

March 23

●Calif., Torrance—PLANT, etc.—Pittsburgh Plate Glass Co., 7412 Male Ave., Los Angeles, 1, 2 and part 3 story, steel, concrete mfg. plant, warehouse and office. $1,700,000. A. C. Martin & Assoc., 332 S. Beaudry St., Los Angeles, archts. CD 3/4.

Tenn., Memphis—WAREHOUSE — W. T. Raleigh Co., c/o Anker F. Hansen, archt., Columbia Mutual Tower, warehouse and office $250,000. Extended date. CD 3/4—ENR 3/10.

SOON LETS CONTRACT

Ky., Glasgow—PLANT—Glasgow Mfg. Co., c/o Edd R. Gregg, archt., Heyburn Bldg., Louisville, soon lets contract plant, $75,000.

Tenn., Memphis—WAREHOUSE, etc.—Liberty Cash Grocers Co., c/o Claude Northern, archt., 1888 Walker St., soon lets contract warehouse and office.

CONTRACTS AWARDED

Ala., Birmingham — PLANT — Crawford, Johnson & Co., c/o George F. Turner, American Life Bldg., bottling plant alterations, to Dunn Constr. Co., First National Bldg., **$99,000.** CD 1/28.

Minn., Minneapolis—WAREHOUSE, etc.—R. C. Duncan, 411 Washington Ave. N., general contract 1 story, 125x132 ft. warehouse and office, 13 Ave. and 4 St. S., to G. W. Madsen, 4700 Dale Dr., Edina (Minneapolis, P. O.). Est. approx. **$150,000.** Haxby, Bissell & Belair, 1111 Nicollet Ave., archt.

R. I., Pawtucket — SUBSTATION — Blackstone Valley Gas & Electric Co., 55 High St., concrete constr. base, electric sub-station, link fence and equip. Owner builds. **$68,000.** CD 12/30—ENR 1/6.

S. C., Clinton—WAREHOUSE—Lydia Cotton Mills, Clinton, warehouse addn., to Fiske-Carter Constr. Co., Spartanburg. Bids 2/21. CD 3/1—ENR 3/10, under LB.

S. C., Rock Hill—PRINTING PLANT—Herald Publishing Co., Rock Hill, newspaper printing plant, to Young Constr. Co., Rock Hill, **$130,000.** Bids 1/7. CD 12/30—ENR 1/6.

Proposal Advertisements see pp. 71 to 73

OFFICIAL PROPOSALS

Bids: March 15, 1949 (916)

Sealing of Wells and Traffic Light Installation

NOTICE TO BIDDERS

SEALED BIDS for:
Item 1:
Sealing of City Water Wells, #2, #3, #4, #5 and #8
Item 2:
Furnishing and installation of signal traffic lights to be located at:
Beech Street at Georgia Avenue
Beech Street at Tennessee Avenue
Beech Street at Arizona Avenue
Broadway at National Boulevard
Broadway at Edwards Boulevard
Broadway at Long each Boulevard
Broadway at Lincoln Boulevard
Park Avenue at Riverside Boulevard
Park Avenue at Lincoln Boulevard
will be received by the City Council of the City of Long Beach at City Hall, Long Beach, N. Y., until 8:00 o'clock P. M. Eastern Standard Time, on Tuesday, March 15, 1949, and then and there publicly opened and read aloud.

Envelopes containing bids must be marked on the outside "Bid for Traffic Lights", or "Bid for Sealing of Wells".

Specifications may be examined at the office of the City Clerk between the hours of 9 A. M. and 4 P. M., Monday to Friday, inclusive.

The City Council of the City of Long Beach reserves the right to waive any informalities in or to reject any or all bids, or to accept any bid which they deem to be most favorable to the interests of the City.

Maurice J. Fleischman
City Clerk

Dated: Long Beach, N. Y.
March 2, 1949.

Bids: April 15, 1949 (917)

Switch Bay Addition

TO
WEST WATER STREET POWER PLANT
ADVERTISEMENT FOR PROPOSALS
TAUNTON MUNICIPAL LIGHTING PLANT
TAUNTON, MASSACHUSETTS

Sealed bids for constructing "Superstructure, Building Services and Miscellaneous Electric Work" for an addition approximately 30 ft. by 90 ft. by 35 ft. high on the West Water Street Power Plant for a new switch bay and office facilities will be received by the Manager at his office in the Taunton Municipal Lighting Plant Building until 11:00 A. M. Eastern Standard Time Friday, April 15, 1949. The Contract Documents, including Specifications and Drawings, may be examined at the office of the Taunton Municipal Lighting Plant, Taunton, Massachusetts, and at the office of Jackson & Moreland, Engineers, 31 St. James Avenue, Boston, Massachusetts on and after February 25, 1949, every weekday except Saturdays between the hours of 9:00 A. M. and 4:00 P. M. and copies thereof may be obtained upon deposit of $30.00 for each set. If all the documents and drawings are returned in good condition, within five days after the opening of bids, the entire amount of deposit will be returned to the bidder.

Each bid must be accompanied by a certified check, for 5 per cent of the bid price, as bid security. No bid may be withdrawn within thirty calendar days after the date of opening thereof. Certified check will be returned to unsuccessful bidders at the expiration of the thirty-day period and to the successful bidder upon delivery of the performance bond.

A performance bond in an amount equal to 100 per cent of the contract price will be required. The right is reserved to waive any informalities in or to reject any or all bids, and to award the contract to any one of the contractors bidding on the work whose bid is deemed to be in the best interest of the Taunton Municipal Lighting Plant.

TAUNTON MUNICIPAL LIGHTING PLANT
BY C. A. OLIVER, MANAGER

OFFICIAL PROPOSALS

Bids: April 5, 1949 (914)

Paving and Other Construction Broome County Airport Broome County, New York

NOTICE TO BIDDERS

Binghamton, New York
March 11, 1949

1. *SEALED BIDS*, in duplicate, subject to the conditions contained herein will be received until 11:00 A.M., Eastern Standard Time, Tuesday, April 5, 1949, at the office of the Clerk of the Board of Supervisors, Broome County Office Building, Binghamton, N. Y., and then publicly opened and read, for funishing all labor and materials and performing all work for the above-described project in accordance with the plans and specifications.

2. Copies of the plans and specifications may be obtained from the Clerk of the Board of Supervisors, Broome County Office Building, Binghamton, New York, upon payment of a charge of $15.00 for each set requested. Check and money orders should be made payable to the order of the County Treasurer, Broome County, New York.

3. Plans and specifications will be available for inspection at the offices of:
S. P. Carman
Security Mutual Building
Binghamton, New York
and
Seelye, Stevenson & Value
101 Park Avenue
New York 17, N. Y.

4. Certified check or bid bond for a sum of not less than 5% of the bid price will be required for each bid, payable to the order of the County Treasurer, Broome County.

5. Payment and performance bonds in the amount of 50% of the contract sum will be required.

6. The right is reserved, as the interest of the Owner may require, to reject any and all bids, to waive any informality in bids received, and to accept or reject any items of any bid.

7. Envelopes containing bids must be sealed and marked as follows: Bids for Paving and other Construction for Broome County Airport, to be opened at 11:00 A. M. Eastern Standard Time, April 5, 1949.

8. The right is reserved, as the interest of the Owner may require, to revise or amend the plans and/or specifications prior to the date set for opening bids. Such revisions and amendments will be announced by addenda to all prospective bidders.

HOWARD DAVIS
CLERK OF THE BOARD OF SUPERVISORS
BROOME COUNTY, NEW YORK

Bids: April 12, 1949 (915)

East Side Sewage Treatment Plant

CONTRACT NUMBER 2

CITY OF BRIDGEPORT

Sealed Bids for the construction of the East Side Sewage Treatment Plant will be received by Fred Schwarzkopf, Clerk of the Highway Committee of the City of Bridgeport, Connecticut, in the City Hall, Bridgeport, Connecticut, until two o'clock P. M. (E.S.T.) April 12, 1949 and then at said office publicly opened and read.

The Information for Bidders, Form of Bid, Form of Contract, Plans, Specifications, and Performance Bond may be examined at said office and copies thereof obtained upon payment of $25.00 for each set. Any bidder, upon returning such set promptly and in good condition, will be refunded his payment, and any non-bidder upon so returning such a set will be refunded $12.50.

The Contract includes the construction of a complete sewage treatment plant of the primary sedimentation type with equipment for removal of grit and screenings, sewage pumping, sedimentation, skimming, chlorination and sludge disposal by vacuum filtration and incineration.

The HIGHWAY COMMITTEE OF THE CITY OF BRIDGEPORT reserves the right to waive any informalities in or to reject any or all bids.

Each bidder must deposit with his bid, security in the amount of 10% of the amount of bid in the form and subject to the conditions provided in the Information for Bidders.

No bidder may withdraw his bid within 30 days after date of the opening thereof.

FRED SCHWARZKOPF, CLERK OF THE HIGHWAY COMMITTEE OF THE CITY OF BRIDGEPORT, CONNECTICUT
ADDRESS: CITY HALL
BRIDGEPORT, CONN.

U. S. Government

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. 2588) will be received by Bureau of Reclamation, Denver, Colorado, until 2 p. m., March 31, 1949, and then publicly opened for furnishing eleven 20-foot by 17-foot radial gates and eleven 15,000-pound capacity motor-operated radial-gate hoists for Delta-Mendota Canal, Central Valley Project, California. Delivery is desired within 240 days. For particulars, address Bureau of Reclamation, Building 1-A, Denver Federal Center, Denver, Colorado.

MICHAEL W. STRAUS, Commissioner.

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. 2589) will be received by Bureau of Reclamation, Denver, Colorado, until 2 p. m., April 5, 1949, and then publicly opened for furnishing one lot of fabricated wrought-iron pipe, appurtenances, and stilling-well liner for Hungry Horse Dam, Hungry Horse Project, Montana. Delivery is desired within 260 days. For particulars, address Bureau of Reclamation, Building 1-A, Denver Federal Center, Denver, Colorado.

MICHAEL W. STRAUS, Commissioner.
(913)

UNITED STATES DEPARTMENT OF THE INTERIOR, Bureau of Reclamation. Sealed bids (Specifications No. 2586) will be received by Bureau of Reclamation, Coulee Dam, Washington, until 10 a. m., April 1, 1949, and then publicly opened for furnishing labor and materials and performing all work for the construction of North Coulee Dam, feeder canal, and railroad relocation, Columbia Basin Project, Washington. The work is situated at the north end of the Grand Coulee within 2 miles of the Grand Coulee Dam. Principal items are approximately: 1,700,000 cu. yds. excavation; 1,200,000 cu. yds. embankment; 470,000 cu. yds. backfill; 56,000 cu. yds. concrete; and other work. The work is divided into two schedules. Time allowed for completion will be 600 days. For particulars, address Bureau of Reclamation, Coulee Dam, Washington; or Buiding 1-A, Denver Federal Center, Denver, Colorado.

MICHAEL W. STRAUS, Commissioner.
(912)

Bids: March 31, 1949 (918)

Construction of Walawe Ganga Dam and Power Plant

Dominion of Ceylon

The Government of Ceylon desires to contact a few Construction Organizations or Firms in Great Britain, United States of America, France, India, Italy, Pakistan, Canada and Switzerland to invite bids from them for the construction of an earthen dam 17,500 feet long and 110 feet high at river bed, a concrete spillway controlled by 9 No. 40' x 30' radial gates and gravity abutment sections in all 875 feet long and 118 feet high, and a Power House with 3 No. 3750 K.V.A. generators driven by 4700 H.P. Francis type turbines for an Irrigation Reservoir—cum-Hydro-Electric project on Walawe Ganga at a site located approximately 100 miles South-East of Colombo, the capital of Ceylon.

Work on the project is to be commenced in 1950 and completed in Forty-Eight (48) Calendar months.

Construction Organizations or Firms experienced in this class of work and who are in a position to undertake the construction of the work, are requested to send in their credentials to reach the Ministry of Agriculture and Lands, Secretariat, Colombo, Ceylon on or before the 31st day of March, 1949.

In forwarding the credentials the Firms or Organizations should send a statement of facts in detail as to their previous experience in performing similar or comparable works, their business and technical organization, financial resources, and their capacity to procure the necessary plant and equipment for construction.

From these contacts a few Construction Organizations or Firms will be selected by Government to invite tenders on a competitive basis.

It is expected to close the tenders from the selected organizations within sixteen weeks from the date of invitation to tender is issued to them.

Tender Forms, together with a set of specifications, schedule of Quantities, and drawing will be issued to the selected Firms or Organizations only.

Note: Any inquiries in this connection may be addressed to:
The Secretary,
Embassy of Ceylon,
2523 Massachusetts Avenue, N. Y.
WASHINGTON, D. C.

OFFICIAL PROPOSALS
(Continued from page 71)

Bids: April 6, 1949 (908)

Sewer System and Treatment Plant

The Municipal Authority of the Borough of Lemoyne, Penna.

Sealed proposals will be received at the Borough Council Chambers, 532 Herman Ave., Lemoyne, Penna., until 2:00 P. M., E.S.T. April 6, 1949 for furnishing all necessary labor, materials and equipment, and performing all work for the construction of a Sewerage System and a Sewage Treatment Plant and appurtenances, and will there be publicly opened and read at that time. Separate proposals will be received upon two parts of the project as follows:

Sewerage System—including 58,000 lin. ft., 8" to 18" vitrified sewers; 24,000 lin. ft., 6" vitrified sewer house connections; 240 brick manholes.

Sewage Treatment Plant—including Control Building, Primary Settling Tanks, Sludge Digester, Sludge Drying Bed, Chlorine Contact Tank, fencing and specified equipment and appurtenances.

Proposals shall be accompanied by certified checks in accordance with the provisions contained in the Specifications and in the following amounts:

Sewerage System—$30,000

Sewage Treatment Plant—$7,000.

Copies of the Contract Documents, Plans and Specifications may be obtained from Gannett Fleming Corddry and Carpenter, Inc., Consulting Engineers, 600 North Second Street, Harrisburg, Penna., upon deposit of the following amounts for each set:

Sewerage System—
Twenty Dollars ($20.00)

Sewage Treatment Plant—
Fifteen Dollars ($15.00)

Full refund will be made to actual bidders for return of one set in good condition within ten days after closing date for receipt of bids; refund for return of all other sets, in good condition within the same period, will be fifty per cent of the deposit.

The Municipal Authority of the Borough of Lemoyne, Penna.
Gannett Fleming Corddry & Carpenter, Inc., Engrs.
600 North Second Street
Harrisburg, Penna.

Bids: April 5, 1949 (909)

Improvement and Enlargement of Joint Sewage Disposal Plant

NOTICE TO BIDDERS
JOINT MEETING OF CITY OF PLAINFIELD, N. J.
BOROUGH OF NORTH PLAINFIELD, N. J. AND BOROUGH OF DUNELLEN, N. J.
CONTRACT "B"—GENERAL CONSTRUCTION
FOR REMODELING AND EQUIPPING TWO RECTANGULAR PRIMARY SETTLING TANKS FOR TWO SLUDGE DIGESTION TANKS AND APPURTENANCES FOR SLUDGE CONDITIONING BUILDING AND APPURTENANCES

Sealed proposals for the construction of improvements and enlargements at the existing Joint Sewage Disposal Plant, located in Middlesex Borough, N. J., including the furnishing of all labor and materials for the Joint Meeting of of the City of Plainfield, Borough of North Plainfield, and Borough of Dunellen, addressed to the Secretary of said Joint Meeting, will be received at the meeting place of the said Joint Meeting at the City Hall, Plainfield, N. J. until 8:00 P. M. on April 5, 1949, and at that time and place will be opened and publicly read. The proposal shall be in accordance with specifications, drawings, terms of the proposed contract and form of bond on file with said Joint Meeting.

No bids will be received unless made in writing on forms furnished, and unless accompanied by a certified check made payable to the Joint Meeting of the City of Plainfield, Borough of North Plainfield and Borough of Dunellen, N. J., for an amount not less than ten (10) percent of the amount of the base bid.

Bidders are notified that under Chapter 180 of the Laws of 1926, State of New Jersey, they will be required to furnish a standard form of questionnaire and financial statement containing a complete statement of the bidder's ability, financial standing, and experience in performing work of the type contemplated, before such bidder can be furnished plans and specifications.

The Joint Meeting, through its Engineers, may refuse to furnish such bidder whose statement is unsatisfactory, with plans and specifications.

The Joint Meeting reserves the right to reject any or all bids, and to accept that one which in its judgment, best serves its interests, and the interests of the City of Plainfield, Borough of North Plainfield and Borough of Dunellen, N. J.

Plans and specifications may be seen at the Disposal Plant and may be seen or obtained at the office of the Consulting Engineer, Elson T. Killam, 140 Cedar Street, New York City, upon payment of $20.00 for each set. The deposit will be returned only to Contractors submitting bonafide proposals who return the plans in good condition, within ten (10) days after opening of bids.

By Order of the Secretary of the JOINT MEETING OF THE CITY OF PLAINFIELD, BOROUGH OF NORTH PLAINFIELD AND BOROUGH OF DUNELLEN, N. J.
Signed Fred Martin, Secretary

Bids: March 30, 1949 (907)

Structural Steel Work Auditorium Building for the City of Miami Beach

NOTICE TO CONTRACTORS
OFFICE OF THE CITY ENGINEER
Miami Beach, Florida
February 25, 1949

Sealed proposals will be received at the above office until 10:30 A. M., on the 30th day of March, 1949, for the material and erection of all structural steel work for the Auditorium Building in the City of Miami Beach, County of Dade, State of Florida, as required to be constructed by the City Council of said City.

All work is to be done in accordance with the Plans, General Conditions, Specifications, Proposal and Contract of the City of Miami Beach, as prepared by L. Murray Dixon, Henry Hohauser, and Russell T. Pancoast and Associates, Architects, and the plans and specifications will be available to bidders at the office of Russell T. Pancoast and Associates, 927 - 41st Street, Miami Beach, Florida, on or after February 25, 1949. All applications must be accompanied by a certified check or cashier's check payable to the City of Miami Beach, Florida, in the amount of $25.00. After a bid is submitted this deposit will be returned by the City Clerk upon return of the plans and specifications in good condition to the office of the City Engineer.

No bids will be received unless accompanied by a certified check or cashier's check or bid bond in an amount not less than 2½% of the total amount of the Proposal and made payable to the "City of Miami Beach", which is to accompany each proposal.

The right is reserved to reject any and all bids and to waive all formalities.
CITY COUNCIL CITY OF MIAMI BEACH
(signed) C. W. Tomlinson
City Clerk

Bids: March 30, 1949 (906)

Auditorium Building for the City of Miami Beach

NOTICE TO CONTRACTORS
OFFICE OF THE CITY ENGINEER
Miami Beach, Florida
February 25, 1949

Sealed proposals will be received at the above office until 10:30 A. M., on the 30th day of March, 1949, for the constructing of an Auditorium Building in the City of Miami Beach, County of Dade, State of Florida, as required to be constructed by the City Council of said City.

All work is to be done in accordance with the Plans, General Conditions, Specifications, Proposal and Contract of the City of Miami Beach, as prepared by L. Murray Dixon, Henry Hohauser, and Russell T. Pancoast and Associates, Architects, and the plans and specifications will be available to bidders at the office of Russell T. Pancoast and Associates, 927 - 41st Street, Miami Beach, Florida, on or after February 25, 1949. All applications must be accompanied by a certified check or cashier's check payable to the City of Miami Beach, Florida, in the amount of $50.00. After a bid is submitted this deposit will be returned by the City Clerk upon return of the plans and specifications in good condition to the office of the City Engineer.

No bids will be received unless accompanied by a certified check or cashier's check or bid bond in an amount not less than 2½% of the total amount of the Proposal and made payable to the "City of Miami Beach", which is to accompany each proposal.

The right is reserved to reject any and all bids and to waive all formalities.
CITY COUNCIL CITY OF MIAMI BEACH
(signed) C. W. Tomlinson
City Clerk

Bids: March 29, 1949 (904)

County Road Work

DELAWARE COUNTY HIGHWAY DEPARTMENT
Delhi, New York

Pursuant to the provisions of Article 6, Section 126, of the Highway Law, sealed proposals will be received by the County Superintendent of Highways, at the Delaware County Highway Office, Page Avenue, Delhi, New York, until two o'clock Eastern Standard Time, on Tuesday, March 29, 1949, for the construction of the following:

CONTRACT NO. 1 — Dunraven-New Kingston County Road, Project No. 46, 0.10 miles variable width of roadway. Bridge #6-1, superstructure abutments and approaches, grading and foundation course. Department Estimate, $52,990.00. Deposit required, $3,000.00.

Structural and reinforcing steel will be furnished by the County of Delaware without charge to the contractor, delivered at the bridge site. Quality and type of materials to be furnished will be tabulated on the contract drawings.

Minimum Wage Rate per hour for above work shall be as follows:
Labor $1.00

CONTRACT NO. 2—East Masonville-Sidney Center County Road, Project No. 48, 0.02 miles. Bridge 35-1, superstructure, abutments and approaches, grading and foundation course. Department estimate, $15,514.00. Deposit required, $1,000.00.

Minimum Wage Rate per hour for above work shall be as follows:
Labor ... $1.30

Maps, plans, specifications and estimates may be seen and proposal forms obtained at the office of the County Superintendent of Highways, at Delhi, New York. Plans will be made for plans, specifications or for each set, or check payable to Delaware County Highway Department. No refund will be made for plans, specifications or proposal forms.

Special attention of bidders is called to General Information for Bidders in the proposal, specifications, and contract agreement. Proposals for each highway or contract must be submitted in a separate sealed envelope with the name and number of the project plainly endorsed on the outside of the envelope.

Each proposal must be accompanied by cash, draft, or certified check, payable to the County Treasurer of the County of Delaware, for the sum as specified in the advertisement for proposals and the proposal itself for each project. The retention and disposal of such cash, draft or check by the County of Delaware shall conform with sub-division 2, Section 38, of the Highway Law, as amended. The successful bidder will be required to execute the contract and comply in all respects with Section 38 of the Highway Law as amended.

The right is reserved to reject any or all bids.

Malcolm MacPherson
County Superintendent of Highways

(Continued on page 73)

Engineering News-Record
Reaches Your Local Contractors

Its distribution among the contractors of any one state is in proportion to the number of contractors situated in that state. The Official Proposal Columns of *Engineering News-Record* offer precisely the same efficient service to municipalities, counties, state and federal departments in every section of the United States.

OFFICIAL PROPOSALS
(Continued from page 72)

Bids: March 21, 1949 (881)

Construction of Swimming Pool & Bath House

VILLAGE OF GREAT NECK ESTATES

Sealed proposals for furnishing all material and equipment and doing all work required for the construction of a swimming pool 50 feet by 100 feet and bath house at the Village of Great Neck Estates, Nassau County, New York, will be received by the Board of Trustees of the Village of Great Neck Estates at the Village Office, No. 160 Middle Neck Road, Great Neck, New York, until 8:00 P. M. on March 21, 1949, when such proposals will be publicly opened and read.

Copies of plans and specifications and other contract documents may be examined or obtained at the office of Seelye, Stevenson and Value, No. 101 Park Avenue, New York 17, New York, upon deposit of $20.00. The full amount of the deposit will be refunded upon the return in good condition of such documents within fifteen days after the opening of bids, if bid is made, or one-half the deposit refunded if returned later than fifteen days or if no bona fide bid is made. No refund will be made for return of documents after thirty days. All proposals shall be on the form furnished in the contract specifications.

Each proposal must be accompanied by a cash deposit or a certified check or bank draft drawn on a bank or trust company authorized to do business in the State of New York, in an amount equal to not less than five (5%) per cent of the proposal. Said deposit may be retained by the Village as liquidated damages in case of failure of the successful bidder to execute the contract within five (5) days after the award, or to give performance bond as required by law. The checks of the unsessful bidders will be returned upon the making of the award.

The Village reserves the right to waive informalities or to reject any or all bids without assigning reasons therefor.

Dated: February 17, 1949.

BY ORDER OF THE BOARD OF TRUSTEES OF THE VILLAGE OF GREAT NECK ESTATES.
GLORY GARDNER
Village Clerk

Bids: April 27, 1949 (888)

Correction of ad appearing in 2/24/49.

Laying Cast Iron Pipe Distribution Mains and Appurtenant Work

CLARKSBURG WATER BOARD
CLARKSBURG, WEST VIRGINIA

Sealed proposals will be received for the item listed below by the Clarksburg Water Board at their office in Clarksburg, West Virginia until 10:00 A.M. on the 27th day of April, 1949, up to the hour of opening bids, at which time and place all bids will be publicly opened and read aloud. Bids will be received on the contract covering:

Laying Cast Iron Pipe Distribution Mains.

Approximate quantities:
14,000 lin. ft. of 12" pipe
6,000 lin. ft. of 8" pipe
600 cu. yds. of rock excavation

The successful bidder will be required to furnish a satisfactory performance bond in the amount of 100% of his contract. The contract documents, including specifications and drawings are on file at the office of the Clarksburg Water Board, Clarksburg, West Virginia and at the office of Alvord, Burdick & Howson, 1401 Civic Opera Bldg., Chicago, Illinois.

The right is reserved by the Water Board to reject any or all bids or to accept any considered advantage to the Water Board.

Certified check, cash, government bonds, bidder's bond, or bank draft payable to the Clarksburg Water Board, or a satisfactory bid bond executed by the bidder and a surety company in an amount equal to 10% of the bid, shall accompany the proposal.

No bid may be withdrawn after the scheduled closing time for the receipt of bids but bids may be withdrawn at any time prior to the scheduled time for opening bids.

SCOTLAND G. HIGHLAND
Secretary and General Manager
Clarksburg Water Board.
Clarksburg, West Virginia.

..... 1949.

OFFICIAL PROPOSALS

Bids: March 23, 1949 (905)

Barge Canal Improvement

NOTICE TO BIDDERS

Sealed proposals in duplicate covering construction of

Contract—Guard Gates, Spillway and per-
U. S. 37 forming other miscellaneous work at Herkimer (Mohawk) Herkimer County, N. Y.

Contract—Guard Gates and performing
U. S. 64 other miscellaneous work at Little Falls, Herkimer County, N. Y.

will be received by Henry A. Cohen, Director, Bureau of Contracts and Accounts, Department of Public Works, The Governor Alfred E. Smith State Office Building, Albany, N. Y., on behalf of the Department of Public Works until 10:30 o'clock A. M. (Eastern Standard Time) on Wednesday, March 23, 1949, when they will be publicly opened and read.

Each proposal must be made upon the form and submitted in the envelope provided therefor and shall be accompanied by a certified check made payable to the State of New York, Commissioner of Taxation and Finance, of 5% of the amount of the bid as a guaranty that the bidder will enter into the contract if it be awarded to him. The title of the work must be written on the front of the envelope, sealed and delivered to Henry A. Cohen, Director, Bureau of Contracts and Accounts, The Governor Alfred E. Smith State Office Building, Albany, N. Y. The blank spaces in the proposal must be filled in, and no change shall be made in the phraseology of the proposal. Proposals that carry any omissions, erasures, alterations or additions may be rejected as informal. Successful bidder will be required to give a bond conditioned for the faithful performance of the contract and a separate bond for the payment of laborers and material men. Corporations submitting proposals shall be authorized to do business in the State of New York. Drawings and specifications may be examined free of charge at the following offices:

Guy W. Pinck, Deputy Chief Engineer, The Governor Alfred E. Smith State Office Building, Albany, N. Y.
State Architect, 18th Floor, 270 Broadway, New York City.
Lacy Ketchum, District Engineer, 109 N. Genesee St., Utica (1) N. Y.
Wm. Robinson, District Engineer, 301 E. Water St., Syracuse (1) N. Y.
A. R. Mulligan, District Engineer, Barge Canal Terminal, Rochester (1) N. Y.
Charles H. Waters, District Engineer, 65 Court St., Buffalo (2) N. Y.

Drawings and specifications may be obtained from the Director, Bureau of Contracts and Accounts, The Governor Alfred E. Smith State Office Building, Albany, New York, upon deposit of $10.00 for each set.

Refund in full will be made to bidders for one set of plans and specifications returned in good condition within 30 days of award of contract or the rejection of the bids. A 50% reimbursement will be made for the return in good condition, of all other sets of the plans and specifications within 30 days following the award of the contract or the rejection of the bids.

Checks for plans and specifications shall be made payable to the State of New York.

Proposal blanks and envelopes will be furnished without charge.

B. D. TALLAMY, Superintendent
N. Y. State Department of Public Works

U. S. Government

UNITED STATES DEPARTMENT OF THE INTERIOR. Bureau of Reclamation. Sealed bids (Specifications No. 2570) will be received by Bureau of Reclamation, Denver, Colorado, until 10 a. m., March 31, 1949, and then publicly opened for furnishing labor and materials and performing all work for the construction of a 115-kv. 3-phase, single-circuit, wood-pole, H-frame-type transmission line approximately 14 miles long, from Wiggins to Hoyt, Colorado-Big Thompson Project, Colorado. Time allowed for completion will be 200 days. For particulars, address the Bureau of Reclamation, Building 1-A, Denver Federal Center, Denver, Colorado.

MICHAEL W. STRAUS, Commissioner. (910)

EMPLOYMENT

REPLIES (Box No.): Address to office nearest you
NEW YORK: 330 W. 42nd St. (18)
CHICAGO: 520 N. Michigan Ave. (11)
SAN FRANCISCO: 68 Post St. (4)

POSITIONS VACANT

WANTED—ENGINEERS, Architects, Draftsmen experienced in the design of sewers, sewage treatment plants, water treatment plants and industrial buildings. Also engineers to supervise construction. State qualifications, experience, salary requirements and date available. P-1155, Engineering News-Record.

STRUCTURAL DRAFTSMAN: Experienced on steel and reinforced concrete bridges. Should be good letterer and able to make up contract plans from designers studies. Mid-Atlantic location; P 8042, Engineering News-Record.

STRUCTURAL DETAILERS—Checkers. Paid holidays. Vacation. Ralph Rinker, 572 Bellevue Ave., Trenton 8, New Jersey.

WANTED ESTIMATOR, experienced, by general contractor. Permanent position. State age, education and starting salary. Reply Box #830, Wheeling, West Virginia.

WANTED—GENERAL Construction Superintendent on a large housing project. Must be good organizer and capable of assuming full responsibility of the actual construction as well as the coordination of all subcontracted trades. P 8102, Engineering News-Record.

SUPERINTENDENTS AND high-class Foreman for concrete bridge work, pile driving and earthwork, by a well established company in the northeastern area. Steady work and advancement to the right men. P 8117, Engineering News-Record.

WELL ESTABLISHED retail firm has position open for structural engineer between the ages of 30 and 40 who is familiar with concrete structures. College degree in engineering and at least five years field experience or experience with structural engineering firm required. Applicant must be capable of supervising construction and experienced in designing and detailing of concrete. Must be free to travel, headquarters in Atlanta, Southeastern resident preferred but not required. Give full details of educational and business history in letter of application. P 8130, Engineering News-Record.

WANTED, ENGINEER—Superintendent for General Contractor operating in Northern New Jersey. Must be able to estimate. Please state age, experience, and salary. P 8146, Engineering News-Record.

WANTED: SUPERINTENDENT for Heating, Piping and Air Conditioning Contractor located in Central Pennsylvania. Experience necessary. Salary plus commission. Send references and state age and experience in first letter. P 8174, Engineering News-Record.

WANTED, SEVERAL engineering graduates, under 35, by large industrial fire prevention organization maintained by leading insurance groups. Permanent position. Periodic inspections and special consulting service for leading industrial plants. Thorough training. P 8063, Engineering News-Record.

WANTED ENGINEER capable of estimating and supervising water and sewer contracting. State qualifications, experience, and salary expected. P 8183, Engineering News-Record.

WANTED MECHANIC familiar with all types of heavy road equipment, batch plant setups, must have own tools. Good proposition. Will go anywhere in New York state. P 8211, Engineering News-Record.

FIRST CLASS Electrical Designer for work large mining organization Chile, South America. General knowledge electrical applications and generation, transmission, and utilization of electric power desired. Must be familiar with installations for hydro-electric generating stations, substations, transmission lines, switchboards, industrial control, motors, hoists, and industrial electric railway equipment and know good deal of the theory involved in such applications. Should be able to turn out finished drawings with bills of material ready for the field, as well as work with Office Engineer in preparation of requisitions covering material involved in his drawings. 3-year contract. Transportation both ways and salary while traveling paid by company. In reply give complete details. P 8200, Engineering News-Record.

(Continued on page 74)

WANTED
CONSTRUCTION SUPERINTENDENT

Permanent, responsible position with a long established Engineering and Contracting company open for Construction Superintendent, experienced in all phases of heavy construction work such as Railroad Construction, Bridges, Dams, Locks, Power Plants, and Industrial Plants. Must be capable of taking complete charge from cofferdam and foundation work to complete installation of machinery and equipment. Applicant must be between 35 and 50 years of age and only those who can furnish highest credentials should apply. Give detailed qualifications in first letter including education, references, and salary desired. Applications will be held in strict confidence.

P8289 Engineering News-Record
520 No. Michigan Ave., Chicago 11, Ill.

Engineering Designers

Several men for layout of Conveyor Equipment for handling heavy bulk material such as ore, coal, coke and stone for Steel Plant Installations. Should have broad experience in the design of Belt Conveyors, Hoppers and Chutes and also layout knowledge of enclosing building and gallery requirements.

Write for application form or give complete information of your past experience, including compensation earned and expected.

ARTHUR G. McKEE & CO.
2300 Chester Ave.
CLEVELAND, 1, OHIO

CONSTRUCTION SUPERINTENDENTS

Large engineering organization desires construction engineers. Must have considerable recent experience in steam-electric power plant construction, and be thoroughly qualified to direct field layout work, preparation of construction reports and specifications for subcontracts. Submit complete experience record.

P 8075—Engineering News-Record
330 W. 42 St., New York 18, N. Y.

WANTED
Young Engineer—Under 40
with practical experience in construction and estimating cost of work for position with contracting company in central and eastern states. Write full information concerning qualifications, experience, previous salaries, and yearly compensation expected. Include photograph if available.

P-8186, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

AIR CONDITIONING ENGINEER

Thoroughly experienced in the engineering, design and selection of air conditioning equipment and installations for office buildings and industrial applications. Knowledge of modern equipment; its characteristics, economic application, also comprehensive knowledge of duct work, contractors and builders practices highly desirable. Salary commensurate with experience. Some travel involved. Give complete record education, experience, age, availability. Location New York City.

P 8074, Engineering News-Record
330 W. 42 St., New York 18, N. Y.

Large insurance company has opening for

ENGINEERING CONSULTANT

in connection with its Mortgage Loan and Real Estate Department. Must have knowledge and experience in construction of commercial buildings and be conversant with costs and appraisal methods. Give complete details including education, experience, salary, age and photo. Reply

P-8197, Engineering News-Record
330 West 42nd Street, New York 18, N. Y.

DESIGNERS
steel mill and structural.
In reply state age, experience and salary expected.
SWINDELL-DRESSLER CORP.
Box 1888 Pittsburgh, 30, Pa.

SUPERINTENDENT

Experienced, all types of building construction from set of plans to completed building. Free to travel. National organization. Complete data first letter.

N-8277, Engineering News-Record
330 West 42nd Street, New York 18, N. Y.

WANTED—Mechanical and Structural Engineers For designing and detailing work on concrete reinforcement, structural steel and hangar door construction. Requirements are three to four years practical experience or recent graduation from technical school. Desirable working conditions and opportunities for advancement. These openings are with a nationally known steel fabricating company, located in eastern Ohio. Applicants will please submit a record of their qualifications.
P-7737, Eng. N-R. 520 N. Mich. Ave., Chicago

POSITIONS VACANT

WANTED: CIVIL Engineer with highway design and construction experience by long established organization, for engineering promotional and educational work in an eastern state. Good personality together with willingness and ability to meet people needed. Age 30 to 40 years. Give resume of education and engineering experience in reply. P-8268, Engineering News-Record, 330 W. 42nd St., New York 18, N. Y.

SMELTER FIELD Engineer for work large copper company, Chile South America. 3-year contract. Transportation both ways and salary while traveling paid by company. In reply give complete details. P 8202, Engineering News-Record.

ASSISTANT CHIEF Mine Engineer for work large Copper Company, Chile, South America. 3-year contract. Transportation both ways and salary while traveling paid by company. In reply give complete details. P 8204, Engineering News-Record.

WANTED — ENGINEER-Superintendent for General Contractor, operating in Mich., near Detroit. Sewer, water and conduit lines. Must be able to estimate. Please state age, experience and salary expected. P 8184, Engineering News-Record.

WANTED—YOUNG engineer for quantity record and survey work for contractor on California Central Valley Canal construction. P 8244, Engineering News-Record.

WANTED: MAN between 25 and 35 to take charge of service station construction for small Independent Oil Marketing Company. Must be able to work from blue print and should have some drawing ability. Should be free to travel. Ohio, Pennsylvania and West Virginia. P 8272, Engineering News-Record.

WANTED—AN experienced estimator for an established Philadelphia concern for large sewers, tunnels and bridges. State salary, experience, and when available. P 8285, Engineering News-Record.

ENGINEERS: LARGE college offers $3000, approx. half time teaching-studying. All ranks univ. positions, experienced $4500-$6500 nine months. Give phone, photo, qualifications. Cline Teachers Agency, East Lansing, Mich.

WANTED: TESTING Engineer, experienced in laboratory and field testing of construction materials particularly concrete, asphalt paving and soils. P.E. license desirable. Location Ohio; position permanent. State age, education, experience and salary. P 8293, Engineering News-Record.

SELLING OPPORTUNITY OFFERED

ALASKA SALES Representative wanted by nationally known manufacturer of portable gasoline-engine-driven pumps, generators, chain saws, electric paving breakers, etc., selling to contractors, railroads, utilities, mining and pulpwood industries on commission basis. Exclusive territory. State qualifications, references, experience. Company official will come to Anchorage in April for interviews with qualified applicants. Write Homelite Corporation, Port Chester, New York.

POSITIONS WANTED

CONSTRUCTION ENGINEER, 25 years experience on all types of government, commercial, and industrial construction. Formerly Construction Supervision for Navy Department, Bureau of Yards and Docks. Licensed, Professional Engineer and Land Surveyor with several years experience on all types of surveys. PW 8178, Engineering News-Record.

SUPERINTENDENT CONSTRUCTION 20 yrs. experience, industrial or high class finished projects. Engineer. Anywhere. Salary $150. PW 8033, Engineering News-Record.

EXECUTIVE ACCOUNTANT—C.P.A. (NY) offers broad experience in accounting matters, taxes and office management. Age 46. Excellent references. PW8119, Engineering News-Record.

(Continued on page 75)

SEARCHLIGHT SECTION

SALES OPPORTUNITY WANTED

Established civil and structural engineers desire to contact producer or manufacturer as sales, estimating or construction representative in Ohio and/or West Virginia. Registered engineers with excellent engineering and sales background.

SA-8286, Engineering News-Record
520 North Michigan Ave., Chicago 11, Ill.

POSITIONS WANTED
(Continued from page 74)

CIVIL ENGINEER—Young, Aggressive. One year experience with water front construction company New York City. Now working for American Oil Co. in South America. Desires job abroad or in USA. Perfect knowledge Spanish. PW 8109, Engineering News-Record.

SUPT. WATER Works—Extensive experience in operation and maintenance of water plants. Especially successful in improving coagulation and filter efficiency, and removing bottlenecks in plants and distribution systems. Education M.S. in chemistry. Interested only in position where waterworks properties are to be properly maintained. PW 8032, Engineering News-Record.

CONSTRUCTION SUPERINTENDENT — 20 years experience in General Construction and Mechanical Engineering. Domestic and foreign. Industrial, chemical and power plants. Have successful record of handling personal, sub-contractors and building to cost. PW 8061, Engineering News-Record.

ENGINEER-EXECUTIVE, twenty-two years experience in practically all types of industrial, commercial and government projects. Civil Engineer, age 42, experienced in the supervision of both design and construction. Last salary $13,000. Good references. Available immediately. PW-7984, Engineering News-Record.

CIVIL ENGINEER, Registered, Experienced design and construction chemical plants, oil refy., plant layout, drydocks, piers. Capable office man. Domestic or foreign. Available immediately. PW-8196, Engineering News-Record.

BRIDGE CARPENTER Foreman, 12 yrs. experience in all phases of Bridge Construction desires position vicinity of Philadelphia. Refences available immediately. PW 8287, Engineering News-Record.

SUPT. WATER Works—Extensive experience in operation and maintenance of water plants and distribution systems. Especially successful in chemical treatments, filtration, improvements in distribution systems, chemical, physical, bacteriological and microscopical examinations of waters of all types. Education B.S. in chemical engineering with 12 years of active experience with plants of all sizes. Interested in position with medium sized city, 80,000 to 200,000 population. Available after April 1st. PW 8270, Engineering News-Record.

CIVIL ENGINEER, 20 years heavy construction experience and engineering sales. Eight years tropics. Speak excellent Spanish. Office Manager last position. Available immediately. Foreign or domestic. PW 8243, Engineering News-Record.

REGISTERED PATENT Lawyer, Mechanical engineering and law graduate. Five years mechanical engineering experience in administrative and development work. Six years experience as patent attorney covering preparation and prosecution of applications, validity and infringement opinions. Desires permanent position with corporation in Chicago area. PW 8256, Engineering News-Record.

CONSTRUCTION SUPERINTENDENT, industrial plants, conveyor systems, coal tipples and coal separation, quarry installations. Age 53, twenty-five years of continuous construction experience. Graduate engineer. PW 8224, Engineering News-Record.

PARTY CHIEF, Designer, Instrument man wants position as assistant county or city engineer, or with consulting engineer or contractor. PW 8223, Engineering News-Record.

GENERAL FOREMAN, 20 years experience. Reinforcing steel, drainage, and underground electrical duct line construction. Available at once. Go anywhere if permanent and adequate compensation assured. References furnished. PW 8290, Engineering News-Record.

SITUATION WANTED

By three 13 cu. yd. Bottom Dump Euclids. Experienced in heavy construction and willing to work around the clock. Ready for hire or adoption.

BRANDEIS MACHINERY & SUPPLY CO., INC.
Brook & Warnock St.
Phone CAlhoun 4741 Louisville 8, Ky.

POSITIONS WANTED

CIVIL ENGINEER, B.S., P.E. & L.S., 29, single; employed. Experienced in industrial building construction, also, housing, sewers, streets, surveys. Desire responsible job in field or office as contractors engineer, architects representative, or plant engineer for construction and maintenance. Can handle field design, estimating, supervision. Some experience on installation of chemical plant and power house equipment. $5200 to start. Prefer East but other locations considered. PW 8210, Engineering News-Record.

GENERAL SUPERINTENDENT or Superintendent available. 25 years. Broad experience supervising and estimating. All types of paving, heavy-excavating, large-sewers, water and gas main construction, air-ports, earth-fill dams, many other classes of construction. Cost conscious, prefer middle west or west. Sober, honest, reliable, best references. PW 8212, Engineering News-Record.

BUSINESS OPPORTUNITY

Wanted to Buy.
Construction equipment business or major interest in same. Midwest location preferred but not essential. Replies confidential. BO 8257, Engineering News-Record.

FOR SALE

Contracting business, road building, land clearing, excavating, etc.
Completely equipped with good machinery, now operating.

Write P. O. Box 713 Little River Sta. Miami, Fla.

FOR SALE

Heavy Construction Co.
Land Clearing, Road Building, Excavating
$30,000 in signed contracts
Inventory value only
***Addressee* 2265 S. W. 28th St. Miami, Fla.**

FOR SALE

(1) 2½ Yd. Bucyrus-Erie Shovel, Buda Diesel Motor, Serial No. 22853 — Model 54B

(1) 1¾ Yd. Lorain Shovel, Serial No. 11457—Model 80

(1) ⅜ Yd. Michigan Truck Crane, Shovel and Backhoe—Model TD6, Serial No. T388

Subject to prior sale

J. H. BEERS
R. F. D. #2 Bangor, Pa.
Phone: Bangor 307

DUMP TRUCKS for sale by owner

4 White WA22, 15000 miles ea.
1 White WB22, 5000 miles
3 White WB26, 1500 miles ea.

All have 12 cu. yd. Hercules dump bodies, cab protectors, 1100 x 20 rock quarry tires.

BARKSDALE Mfg. Co., Blytheville, Ark.

FOR SALE

1—1½ Yd. Osgood, model 3100, (diesel) combination shovel and crane. Excellent condition.
1—1¾ yd. Lima, 750, (diesel) combination shovel and dragline completely rebuilt in 1949.
1—1¾ Yd. Osgood (diesel) shovel, brand new, used about 3 months.

FS 8122, Engineering News-Record
330 West 42nd St., New York 18, N. Y.

FOR SALE

USED STRUCTURAL STEEL BUILDINGS—OVERHEAD ELECTRIC TRAVELING CRANES

BENKERT STEEL & SUPPLY CO.
2017 Preble Ave. Pittsburgh, Pa.

WANTED

WANTED

2¼ yd. Clam Shell Bucket
⅜ yd. Backhoe for Bay City Model 30
35 ft. Lattice Boom for Northwest Model 25

"STONE THE CRANE MAN"
415 Brainard Ave. *Temple 1-2575* Detroit 1, Mich.

Quantity steel sheet piling can be 10 ft. long. Late Model truck Crane

W-8292, Engineering News-Record
330 West 42nd Street, New York 18, N. Y.

WANTED TO BUY

New or Used
BLASTING MATS
Quote Price.

JOHN ARBORIO, Inc.
West Cedar Street Poughkeepsie, N. Y.

WANTED

1-½ YD. TRENCH HOE

Lima or Northwest preferred. New or used.

TORSON CONSTRUCTION CO.
1890 Woodswether Road, Kansas City, Mo.

WANTED

Cutting Edges

Grader Blades

Any Quantities

Write—Wire—or Phone

W8261, Engineering News-Record
330 West 42nd St., New York 18, N. Y.
New York Phone Beekman 3-8537

WANTED

1—Used Buffalo-Springfield 3 axle Tandem 12-18 ton roller
1—Late model Adnun Paver perfect condition
1—105 c.f.m. Air Compressor

W-8135, Engineering News Record
330 West 42nd Street, New York 18, N. Y.

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Ask for our LOW DELIVERED PRICES. If you are in a hurry, wire us "collect."

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100# RB RELAYING RAIL
500 TONS WITH BARS
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RAILS-ANGLE BARS TIE PLATES
Write for Regular Bulletins of
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Heavy Duty DRAGLINE or CRANE
P & H 955 LC.,—3 yd. drag—Serial 6989 80' Boom with 10' extra section & 20' jib, back stays etc.; equipped with 8 cyl. Cat. D17000 motor, 4 cyl. light plant—machine completely rebuilt in excellent condition.

Price low for prompt sale. Located Clearfield, Pa.

Phone Winburne 3311 *or write*
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BLACK AND GALVANIZED STEEL PIPE
DELIVERY IMMEDIATELY FROM STOCK

20,000' to 80,000'	Each Size in Stock
¾"	1½"
1"	2"
1¼"	2½"

Prime Stock—T & C or Plain End
Full Mill Lengths—Domestic Pipe—
Standard AWWA Specifications

OTHER SIZES AND FULL LINE OF STRUCTURAL STEEL AND SHAPES IN STOCK

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Cast Iron Water Pipe & Fittings
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	6-inch	12-inch
	8-inch	
RECONDITIONED—	12-inch	
	16-inch	
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VALVES—All sizes—New and Reconditioned.
FLANGED PIPE— 6-inch New
8-inch New
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C.I. WATER PIPE FITTINGS—All kinds and sizes.
SOIL PIPE—from 2 inch to 15 inch and Fittings. Immediate delivery

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Hempstead 2-5535-8857

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CONCRETE PLANT
2—3½ cu. yd. Jaeger-Lembo Mixers, one mounted on 1928 Mack Truck, other on 1943 GMC - 10 wheel truck.
1—x-66 cu yd. 3-compartment Butler Type Bin with weighing batcher.
1—Gasoline Driven Conveyor Elevator.

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STillwell 6-1572

2 D-8's, 8R & 1H series w/dozers
2 D-7's, 4T & 7M series w/dozers
1 D-4, 2T series w/dozer
1 Caterpillar model #12 Grader
Truck Crane, Unit ½ yd., new
Truck Crane, Quickway mod. E
2 Diesel Rollers, Galion & Huber 10 ton
Machinery Trailer, 30 ton
3 International T-9 Swing Cranes
Tractor, TD-14 w/Hughes-Keenan Crane
Asphalt Distributor, 800 gal.
Cement Mixer, 2 bag, on rubber tires
2 TD-18's, 1 TD14 w/blades
Also other items.
All very clean, some new
For details and pictures:
WRITE BOX 114
MIAMI SPRINGS, FLA.
Phone Miami, 78-0243

FOR SALE—BARGAIN
½ YD. SHOVEL ATTACHMENT & CRAWLER BASE WITH TRACKS, COMPLETE FOR MODEL LS 50 LINKBELT
NEW—UNUSED NOT WAR SURPLUS
CONTRACTORS MACHINERY CO.
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FOR SALE
Northwest #25 ¾ yd. crane, ser. #5530, in good condition, 35 ft. boom, fairleads, shovel front, gas engine.....$8,500.00

AMERICAN CONSTRUCTION CO.
RFD 4, Columbia, S. C. *Phone 2-1840*

SURPLUS STRIP EQUIPMENT, FOR SALE
One 80D. N.west Dragline, Murphy Diesel Power.
One Model 8, N.west Dragline, Murphy Diesel Power.
One Model 5 N.west shovel, Wisconsin gas Power.
One Model 5, Heavy Duty Quarry type, N.west, Murphy Diesel Power.
All of this equipment in extra good working condition, and working now.

J. F. MULLIGAN COAL CO., INC.
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FOR SALE
1 Cleveland 20 to 24 ft. Subgrader in excellent condition
1 Heltzel 110 ton, 3 Compartment Bin equipped with Kron Dial Scales and 1 yd Batcher like new—
Call or write
THE UNION SAND & SUPPLY CORPORATION
BOX 286, PAINESVILLE, OHIO

FOR SALE
G. E. Generator Set
A.C. 220 V. with International U.D.-14 Power Unit. A-1 operating condition.

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FULL TRAILER, JAHN, LOW BED, 22 TON.
EXCELLENT CONDITION
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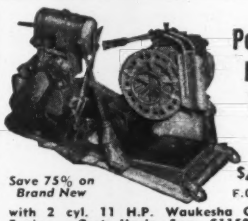

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For bldg. contr., water well drillers, coal mines, tank builders, farmers—wherever a real winch is needed. Drum carries 400' of ⅝" cable or equiv. in other sizes (cable not furnished). Will handle 5000-6000 lbs. at 50'/min., or 3000# at 100'/min., or lighter loads faster. Free wheeling drum. Hy. brake. Stan. auto. parts and other avail. parts from winch mfgr. Motor alone worth $180. Will last for years. Similar winches sell now for $1600. Guar. brand new with tools, parts list, 32 access. in all. Net wt. 1070 lbs. Shipping wt. 1650 lbs. Net size about 41"x42"x64". Send purch. order, or send 25% deposit. Bal. COD subject to in-spec.

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Ask for Dept. 3-1 - Ph. 3-3892

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1—Dual Drum 34E Koehring Paver
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1—Jaeger Finishing Machine 20 to 25 ft. Type H, Waukesha motor.

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Complete Dual Drum Paving Outfit for $25,000.00

Consisting of:

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ALL LATE MODELS

Lorain 79 Diesel 1½ cy Shovel
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International TD-14 hydr. bulldozer wide gauge
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ALL CAREFULLY SHOP-REBUILT
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2—3 yd. Ransome Mixers mounted on 10 wheel, 1941, Federal trucks.
1—1½ yd. Jaeger Mixer mounted on G.M.C. truck.

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NEW MADSEN DRYER

6' x 28'—skid mounted with stack, burners, firebox preheater & V-belt drive

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Camp Hill, Pa.

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2—50 KW-3 Phase, 60 cycle 220 volt Superior 6-cylinder Diesel Generator Sets complete with 24 volt Starters & Generators, mounted on heavy Steel frame, condition equal to new.

Priced low for quick sale.

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EUCLID BOTTOM DUMP

1942 18 cyd Struck Capacity, Tractor Model 3LDT, Trailer Model 63-W, powered 6 cyl Cummins Supercharged Diesel, Tractor Drive & Trailer Tires 24:00 x32, 36 ply. $8,500.00.

EQUIPMENT RENTAL SERVICE
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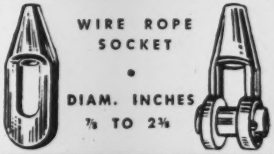

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1—Manitowoc Model 2000 crawler crane/drag combination—diesel engine.
1—Lima Paymaster crawler pullshovel crane combination—gas engine.
1—Lorain 1¾ yd. crawler diesel shovel.
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FS-7325, Engineering News-Record
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FS8282, Engineering News-Record
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CONSTRUCTION BUSINESS

Construction costs drop; seen affecting financing

A sustained decline in the cost of building—now continuing over a five month period—is causing financing agencies to take stock of their appraisal policies for new buildings.

From its record height in October, 1948, the ENGINEERING NEWS-RECORD building cost index fell 1.3 percent as of this month, under strong pressure from dipping lumber prices. The ENR materials cost component retreated to its lowest point since July of last year.

The building cost index of the Boeckh Co. fell 1.5 percent between October, 1948, and January, 1949, for all types of buildings in 20 major cities. Turner Co.'s index, which takes into account intangible costs, fell only .7 percent during the six months ending in February 1949.

This consistent decline of construction costs, after a steady rise (with minor exceptions) since pre-WW II days, will probably soon be reflected in new-home financing policies. In recent years FHA field offices have insured mortgages on "long term" value. This involves deducting 1 to 5 percent of the construction cost to allow for possible declines in future costs and property values. Now, justification of these deductions is becoming increasingly difficult, when based wholly on cost fluctuations.

For the buyer or builder, that means a greater percentage of the building cost will be recognized as stable, and hence insurable, by the financing agency, statisticians believe.

Decline continues in lumber price

Lumber prices in March have fallen to their lowest in 19 months. ENR price reports from 20 cities peg the cost of 1,000 bd. ft. of 2x4 short leaf yellow pine and Douglas fir at an average $83.51, down more than $10.00 from the February 1948 high, and $3.81 below the January 1 price this year. The current slump has been sustained for the past eight months, and as yet shows no sign of recovery.

Despite the slow rise in cement prices, and firm steel prices, the ENR materials cost component has fallen 2.1 percent since January 1, as the result of sharp lumber price declines.

Lumber production totals for the month of January were not adversely affected by price cuts, according to a report just released by the National Lumber Manufacturers Association—nor was total production for the entire U. S. curtailed by severe limitations placed on logging and milling operations in the Northwest, now blanketed by snows of the worst winter in 56 years. Weekly production totals in January this year have averaged three percent above January 1948.

During the first two months of 1949, production has been at a weekly rate ranging from 40 to 60 percent above the average corresponding weekly totals of 1935-1939.

Actual production was three percent higher than January, 1948, by weekly averages, while shipments over the same period were less than the comparable month last year by 1.6 percent.

Heating Equipment and wire prices cut

Price cuts up to 20 percent on heating and ventilating equipment, and up to 14 percent on copper wire, have been announced by major producers in the industries.

The 20 percent cut applies to some types of warm air furnace equipment, a 12 percent cut to sectional boilers, and a 5 percent cut to residential boiler equipment. Reasons given for these price cuts by five major producers, include the "hope of stimulating new home construction," reductions in the cost of scrap iron, and greater efficiency.

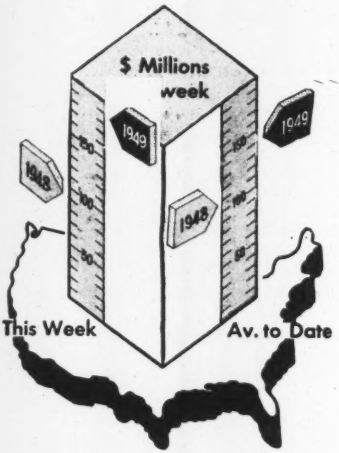
Price cuts on copper building wire and service wire, range from 5 percent on the smaller sizes used in homes and commercial buildings, to 14 percent on the larger service wire. General Cable Co. announced its revisions were due to competitive prices, while authorities say that supply is catching up to demand.

February construction employment above last year

A preliminary total of employment by construction contractors during the month of February is reported at 1,793,000, 6 percent less than the number employed for construction in January, but 15 percent higher than the comparable month last year, according to Bureau of Labor Statistics estimates. It is 20 percent below the high month of August 1948.

ENR INDEX NUMBERS

Index Base = 100		1913	1926
Construction Cost.	Mar.'49	474.80	228.24
Building Cost	Mar.'49	352.47	190.54
Volume	Feb.'49	255.	112.



Activity This Week

As reported to ENR

Amount of contracts let

(Millions of dollars, continental U. S. only)

	Week of Mar. 10 1949	Cumulative 1949 (10 wks.)	Cumulative 1948 (11 wks.)	% Chge
Federal	$50.5	$217.9	$248.8	−16
State & Mun.	68.0	476.6	416.3	+26
Total Public	$118.5	$694.5	$701.1	+9
Total Private	66.0	737.5	585.7	+39
U. S. Total	$184.5	$1,432.0	$1,286.8	+22

Contracts by type of work

	This Week	Cumulative 1949 (10 wks.)	Cumulative 1948 (11 wks.)	% Chge
Waterworks	$2.7	$24.1	$38.6	−31
Sewerage	3.3	36.9	36.3	+12
Bridges	7.5	72.7	52.1	+53
Highways	8.9	91.6	157.1	−36
Earthwork, Waterways	20.6	85.8	139.7	−33
Buildings, Public	69.8	338.1	230.9	+62
Industrial	17.0	197.7	148.2	+46
Commercial	45.4	477.7	381.3	+38
Unclassified	9.3	107.4	102.6	+15

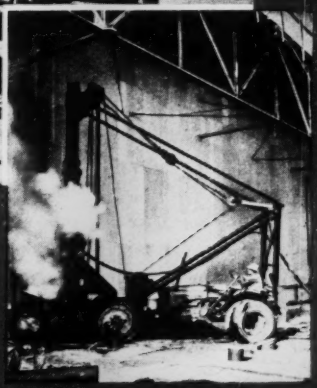
NOTE: Minimum size projects included are: Waterworks and waterway projects, $28,000; other public works, $50,000; industrial buildings, $68,000; other buildings, $250,000.

New capital for construction

	Cumulative 1949 (10 wks.)	Cumulative 1948 (11 wks.)	% Chge
NON-FEDERAL	$944.9	$656.9	+58
Corporate Securities	465.2	374.1	+37
State and Municipal	479.7	282.8	+87
Total Capital	$944.9	$656.9	+58

NO JOB TOO LARGE

...NO JOB TOO SMALL



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No matter where you are there's a Timken Rock Bit distributor within telephone call. Conversion and reconditioning shops also are conveniently located for quick service. Put Timken Bits to work now—cut drilling costs, increase production.

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